THE
SCHOOL ARTS MAGAZINE

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The Editorial Point of View

A SUPERVISOR, PLUS

WE had taken an early morning train to reach a school in a distant part of the town.

"Good morning, Mr. Stewart," was the Supervisor's salutation to the Conductor, as he reached for her mileage book. "Where is Bruce?"

Bruce had not been to school; had been visiting friends somewhere; thought he might get a job perhaps; was uncertain as to his future, etc., etc. The information furnished by the Conductor concerning his son was more voluminous and less definite than his reports to the train dispatcher!

"Will you tell Bruce I want to see him, just as soon as possible?" asked the Supervisor.

"Yes, I will. He thinks a good deal of you." And Mr. Stewart went on with his ticket punching.

"Bruce is a bad lot," confessed the Supervisor. "But he's the kind best worth saving. He 's bright, full of vitality, with a big heart in him; but he has n't found himself yet, so he 's running wild for the fun of it. We 'll rope him yet."

"Evidently you think a Supervisor of Drawing should be something of a cowboy," I ventured.

"A Supervisor of Drawing should help boys and girls to make the most of themselves. Otherwise, what does our teaching of drawing amount to? I 've got my eye on six or eight children in this town who are going to do something worth while. Between that blessed High School Master and me they cannot escape it. You just wait and see."

A SCHOOLMASTER, PLUS

"TELL me about that 'blessed high school master.' Is he another cowboy?"

"He is worth his weight in pure gold to this country town," replied the Supervisor. "I believe in college men, and college courses for every child who ought to have them. Essays on dish-washing and hen-raising will never put into the hearts of country children what a whole-souled college man brought to us the winter he taught our one-room school in the Berkshire hills; but don't you know what a mole you find sometimes in a high school? — a star-nosed fellow, that has burrowed out of some college class-room and come up in a high school room, who knows nothing but books, and books in dead languages at that. He thinks he is a success if he can discover one little mole more every year and run him through his own private

tunnel into his own private college. Our man here isn't that kind. He is the other kind; a real *man*. You must know him. He has eyes in his head, and a soul inside him. He wants *all* his boys and girls to get a vision of the larger life that is possible to *them*, considering their own limitations and talents. Do you know," added the Supervisor, laughing, "a big Swede stopped me on the street the other day and said that his boy was going to Amherst Agricultural College simply because he was afraid the High School Master would n't like him any more if he stayed at home!"

A GOOD COMBINATION

For five years now these two teachers of high potential have been working together in a sleepy country town in Massachusetts, — a shore town whose inhabitants are descended from sea captains and fisher folk, people who naturally wait to see what the weather is to be, and whether the fish are likely to bite, before making up their minds to do anything. The town was increasing rapidly in wealth, owing to the influx of a summer population of the best sort, and the younger natives were settling down to fatten on the spoils, when by some kindly providence this conjunction of a live high school master and a live supervisor of drawing happened to occur.

During these five years these two people, one beating the bush, so to speak, and the other bagging the game, have made a record for efficiency worth a moment's thought, especially at New Year's. They have discovered capacities, awakened ambitions, strengthened wills, pried open family purses, and sent 7 pupils to Pratt Institute; 2 to the Massachusetts Institute of Technology; 3 to the State Normal Art School; 1 to Worcester Polytechnic Institute; 1 to the Draughting Room of a large city manufacturing plant; 4 to the Nautical Training Ship *Ranger;* and 7 to Wentworth Institute, Boston — a total of 25 pupils in five years.

In addition, several promising pupils every year have entered a normal school, and the usual one has gone on to college.

The value of such work as this cannot be reckoned in dollars and cents. Think of what it may mean to society to have these twenty-five young people well-trained contributors to the commonwealth. Think of what it will mean to the boys and girls themselves.

PERSONAL QUESTIONS

For how much would you part with the larger conception of life, the greater efficiency, the increased capacity for enjoyment, the higher ideals, that your own later years in academy and college and art school brought to you, my dear Supervisor? And what are you doing to give these experiences to your pupils? Are you just a teacher, just a supervisor, or are you a supervisor, *plus?*

How about a New Year's resolution *to find* boys and girls, and lead them into a larger and richer life?

These two teachers make that their chief business. They use every possible means to "get alongside." Two boys they captured with the aid of a janitor who loved flowers and shrubs. One boy was won the day of his graduation from high school, because his teacher of drawing drove twelve miles to hear him speak his part, and twelve miles home again in the night. These wise people

keep themselves supplied with the annual circulars of schools of all sorts, — agricultural, industrial, commercial, normal; schools of art, vocational schools, technical institutions, trade schools, — circulars that will tempt all sorts of boys and girls. At the right time, the right circular is placed in the hands of the right pupil, the right word of encouragement is spoken, the right handclasp is given, and one more youthful spirit is guided into the right place in life. "The chief function of the teacher," once said an old German pedagog, "is to quietly corner one goose at a time and catch him." Are you doing it?

A PERSONAL TRIBUTE

I LOOK back with gratitude to a high school teacher *plus*, Stephen A. Snow by name, who helped me to find myself. A lump rises in my throat now when I think of him, even after thirty years. How he loved us all, and worked and planned for us day and night! He made us believe we were all swans, and capable of great things. His boys and girls

Plate I. Ornamental art for the child finds its elementary forms in the natural movements of the hand holding brush and pencil, putting together the fundamental forms guided by recollections of things in his environment.
This form of design is recommended by Professor Richard Burckner, of Dresden.

are now scattered from Maine to Minnesota. Some of them hold positions of great responsibility and honor. Some, alas, neglected to enter the doors he opened before them. But every last

Plate II. The title-page of a publication called the *Pelican*, showing a logical outcome of the sort of decorative brush-work advocated by Professor Burckner, and showing also the kind of printed matter freely distributed at the Dresden Congress.

one of them would rise up and bless the man who did his level best to make efficient men and women of us all.

And you, who read these words, will be remembered by your pupils just in proportion to your potential as an emancipator, just in proportion to the number of boys and girls who will be able to say of you bye and bye, as one of old said of a greater Teacher, "Whether he be a sinner or no, I know not; one thing I know, that, whereas I was blind now I see."

THE DRESDEN EXHIBITION

THE Editor's resolve, as he approached this Exhibition, was to look for the things that were different

Plate III. Samples of the post-cards sold at the Dresden Congress.

from what one might see in an American show. The first impression was one of pleasure. Evidently the whole thing had been looked upon as a problem in design. The buildings and their accessories — decorative trees and shrubs in movable receptacles, signs, everything connected therewith as beautiful as possible. The advertising cards, circulars, and booklets, were simply fascinating. Hints of this are afforded by the illustrations on pages 275 and 277, but unfortunately they have cooled off, as it were. The color does not appear.

Plate IV. Designs clipped from various advertising pamphlets given away in the commercial section of the Dresden Exhibition.

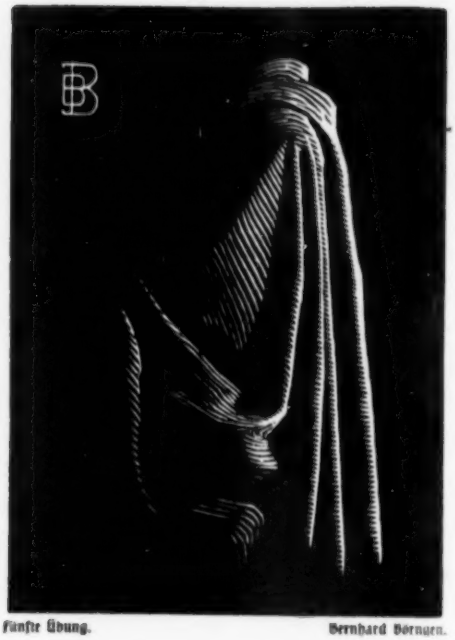
bulletin boards, labels, etc., — had all been considered in relation to each other and as having definite functions, all subservient to the purpose of the whole. Perhaps beauty had not been achieved everywhere, but it had been striven for.

The Exhibition had two main divisions: Professional and Commercial. The Commercial division was always crowded with visitors. Possibly one reason for this was the applied art of it. Each publisher, each manufacturer, had been inspired evidently by the same motive, namely, to make his exhibit and They bear about the same relation to the originals that clinkers bear to live coals.

The official bulletins, programs, and reports were all examples of good typographic design. It was a pleasure to look at them. The plate on page 276 gives four of the "official post cards" sold to visitors.

In the Professional division of the Exhibition about one third of the work upon the walls was like what we have in the United States, but worse. Another third was similar to our work, so far as subject matter and the use of

Erste Übung. Ludwig Lödel.



Fünfte Übung. Bernhard Börngen.

Zweite Übung. Wilhelm Knittel.

Fig. 9. Schülerarbeit.

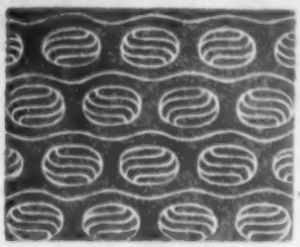
hat, der wird wissen, daß der Tonschnitt, also das Einschneiden feinerer Linien und Punkte in den vollen Grund der Platte die eigentlich wahre Technik des Holzschnittes ist, denn jede Wiedergabe von einzelnen Linien, z. B. die Wiedergabe von Umrißlinien, bedeutet die größere und umständlichere Arbeit gegen über dem Tonschnitt. Daß man früher schon bemüht war, den Schnitten malerische Wirkung zu geben, kann an alten Drucken genügend beachtet werden, doch setzten Material und Werkzeug den Künstlern enge Grenzen. Es ist weiter auch ein Irrtum, den Faksimileschneider höher einzuschätzen als den Tonschneider. Während die Namen ersterer meist bekannt sind, begnügt man sich, wenn es sich um Tonschnitt handelt, damit, den Namen des Geschäftes zu nennen, ohne sich groß um den wirklichen Verfertiger der Arbeit zu kümmern. Der Tonschnitt erfordert ein bedeutend größeres Können des Holzschneiders, als der

Fig. 10. Schülerarbeit.

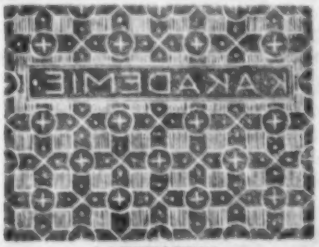
Plate V. Examples of printing from engraved blocks of wood and from etched blocks of metal by pupils of upper high school grade, Leipzig.

METALLGRAVIERUNG

IN DEN VERSCHIEDENEN TECHNIKEN
DARGESTELLT VON DER FACHKLASSE
FÜR STEMPELSCHNITT, GRAVIERUNG U.
PRÄGEDRUCK AN DER KÖNIGLICHEN
AKADEMIE FÜR GRAPHISCHE KÜNSTE
UND BUCHGEWERBE ZU LEIPZIG



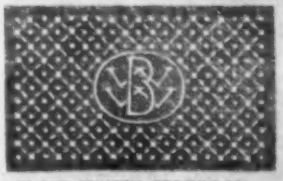
EINZELARBEITEN AUS DEM TECHNISCHEN KURS.



I. METALLSTICH.

II. STEMPELSCHNITT.

III. RELIEFGRAVIERUNG.



IV. MIT PUNZEN GESCHLAGEN.

DIE 4 VORÜBUNGEN DES TECHNISCHEN KURSES.

FÜR DIE BUCHDRUCKPRESSE GESCHNITTEN
VON PAUL RUKWID.

FÜR DIE BUCHDRUCKPRESSE GEÄTZT
NACH EINER ZEICHNUNG VON GEORG SCHILLER.

Plate VI. Examples of printing from engraved metal blocks designed and executed by pupils of upper high school grade, Leipzig.

mediums are concerned, but better, technically. The remaining third was equal to the very best work from the best schools we have, and contained a large amount of work besides, much better than anything we can show. This best work came for the most part from the elementary schools of Switzerland and the technical schools of Germany and Austria-Hungary.

The plates on pages 278 and 279 show examples of pupils' work from the technical courses of the preparatory schools of the Imperial Academy for Graphic Arts and Bookmaking at Leipzig. This work is by pupils from sixteen to twenty years of age. The illustrations, showing only the simpler applications of principle and process, have been selected with special reference to their suggestiveness to American teachers. How direct, strong, and effective this work is! The "Dante" face was printed in "red-chalk" color. The designs in the halftone plate were printed in middle value gray on a cream white ground with black margin lines and text. Compared with this our work looks amateurish and unfinished.

THE CRAYON INVESTIGATION

THE comprehensive plan for arriving at a reasonable conclusion as to relative values of various types of colored crayon, announced elsewhere in this number, deserves the hearty co-operation of supervisors and teachers everywhere. The broad basis upon which the contests are to be conducted is of itself a significant sign of the new century. The cut-throat competition of the nineteenth century is bound to be superseded by the co-operative service of the twentieth. The SCHOOL ARTS MAGAZINE is glad to have attained that degree of "adult-hood" which enables it to bear its part in an undertaking of such magnitude and of such value as this investigation is destined to be.

THE AMERICAN ART PLEBISCITE

SLOWLY, but with ever brightening promise of a result well worth the time and money it has cost, the exacting ballots, returned from cultivated people in almost every state in the Union, are now being tabulated. By next month, we hope, the first lists and figures can be announced. The personal letters and annotations, which in many cases have supplemented the titles submitted, indicate a deep and strong public sentiment in favor of American Art for American children. More than forty years ago Emerson wrote these words:

> In this country, at this time, other interests than religion and patriotism are predominant, and the arts, the daughters of enthusiasm, do not flourish. The genuine offspring of our ruling passions we behold. Popular institutions, the school, the reading-room, the telegraph, the post-office, the exchange, the insurance-company, and the immense harvest of economical inventions, are the fruit of the equality and the boundless liberty of lucrative callings. These are superficial wants; and their fruits are these superficial institutions. But as far as they accelerate the end of political freedom and national education, they are preparing the soil of man for fairer flowers and fruits in another age. For beauty, truth, and goodness are not obsolete; they spring eternal in the breast of man; they are as indigenous in Massachusetts as in Tuscany or the Isles of Greece. And that Eternal Spirit, whose triple face they are, moulds from them forever, for his mortal child, images to remind Him of the Infinite and Fair.

Some of the images have appeared, — the first flowers and fruits of that other age foreseen, and the eyes of our boys and girls should own them.

Taking the First Steps

By David F. Lincoln, M.D.

Dr. Lincoln has approached the problem of cultivation by means of drawing and painting by an unused if not an entirely new path. His testimony is worth hearing. — EDITOR.

TWO pairs of figures, A and B, C and D, are given first as illustrations of a somewhat frequent occurrence in drawing. A is the teacher's drawing, B is the child's "copy." C is the teacher's drawing, D is the child's "copy." Do such failures throw light on the general condition of mind with which children face a problem in drawing?

The writer has had for five years past a group of a dozen girls from upper grammar grades, whom he has kept busy at "drawing and painting." The membership, it is true, has changed repeatedly, but the continuance of interest in a voluntary club deserves notice, and seems to have been favored by certain conditions.

In the first place, the subjects taken were unlike those of their school work, and often had the attraction of novelty or surprise. Among those which proved most interesting were dwelling houses, colonial doorways, and simple designs like hearts, stars, diamonds, and rosettes. Flowers seemed too difficult. And secondly, it has been their cherished privilege to color everything they draw, when reasonable pains are taken. It is safe to say that without color the interest could not have been kept up.

We have lately been following a plan which aims more directly at the correction of known defects. The work consists, as before, chiefly of making a small copy of very simple drawings. Since this plan was adopted, a book has fallen into my hands which expresses so well our long-felt needs, and the remedy, that a quotation may be more to the purpose than my own words. The book referred to is "Training of the Memory

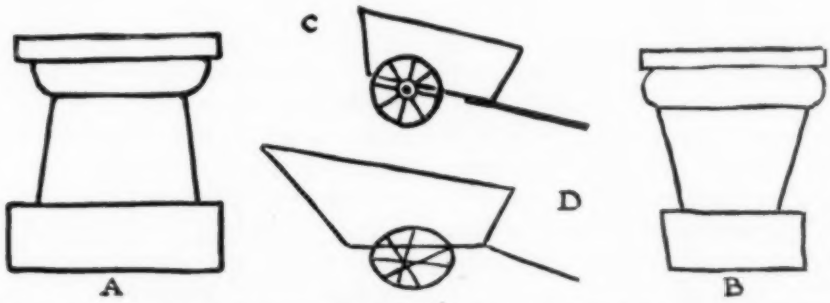


Plate I. (a.) The teacher drawing upon the blackboard. (b.) A student's "copy." (c.) The teacher's drawing. (d.) A student's "copy." Such records of distorted visualization are not uncommon.

in Art," [1] by Lecoq de Boisbaudran, the well-known French teacher of art. He says:

"The first copies should be of such a kind that the beginners can imitate them with absolute exactness; for close attention and fidelity of imitation are the only means by which they can attain to the correctness which is the first faculty to be acquired."

In looking through our series of studies it will be seen that they are largely geometric, and all are of a kind to facilitate tests for accuracy in work. Is it not true that one of the chief functions of the "regular" studies in school is to correct vagueness of thought, carelessness in work, and looseness of statement? For promoting good mental habits in these respects, drawing possesses some distinct advantages in its objective character; it may be made a powerful auxiliary in the training of observation, judgment, care, attention; and we have yet much to do in realizing these potentialities of drawing.

Children are not bored by insistence upon accuracy, though at the age we are speaking of they seem to have little power of solving their own problems. They like companionship and competition. They like even rigorous criticism, provided they can be shown a way to conquer the difficulty.

Our first subject was an equilateral triangle, which, when mastered, was combined into a star (Figs. 1 and 2). From this, by two successive steps, a rosette was developed (Figs. 3 and 4). A second series was based on the square (Figs. 5, 6 and 7). An object of more interest, the lotus (Fig. 8), from Racinet, was then taken as a favorable subject for a communal drawing, to which each member contributed a share, each one in turn being allowed to place one of the guiding points or draw one line, so going around the club several times. The interest in this scheme was very keen.[2]

Figure 9 explains the device of two crossed ellipses used to give definiteness to the outline of a heart. Simple as it may appear, the development, drawing and coloring filled a whole session of more than an hour. The ten well-shaped small hearts were then cut out and used in making a valentine for the children's teacher.

It will be seen that the curves so far are simple. Figure 10 introduces a double curve. In this exercise the use of a ruler was permitted for the first time, as the difficulties of the spiral were thought sufficient by themselves. The ogee was further shown by a handbill, and then by a Venetian window and an Oriental dome.

A word as regards methods: On first showing an object, or drawing, its parts, their relations and their properties are explained, and a first draught is made, perhaps repeated, on good printing-paper. Each piece is criticised, and the owner then corrects it. A *second drawing follows*, on paper fit to receive water colors, and finally all color the completed work in flat wash.

It is necessary for the director to analyze the subject in advance, to anticipate difficulties, and to have remedies at hand.

Pupils in the same grade differ much

[1] Reviewed in the SCHOOL ARTS MAGAZINE, September, 1912, p. 66.

[2] The *lotus* here reproduced, traced from the children's drawing, was made by the united club working in turns, and naturally has little to boast of in the way of beauty; but it will serve to illustrate a method of procedure.

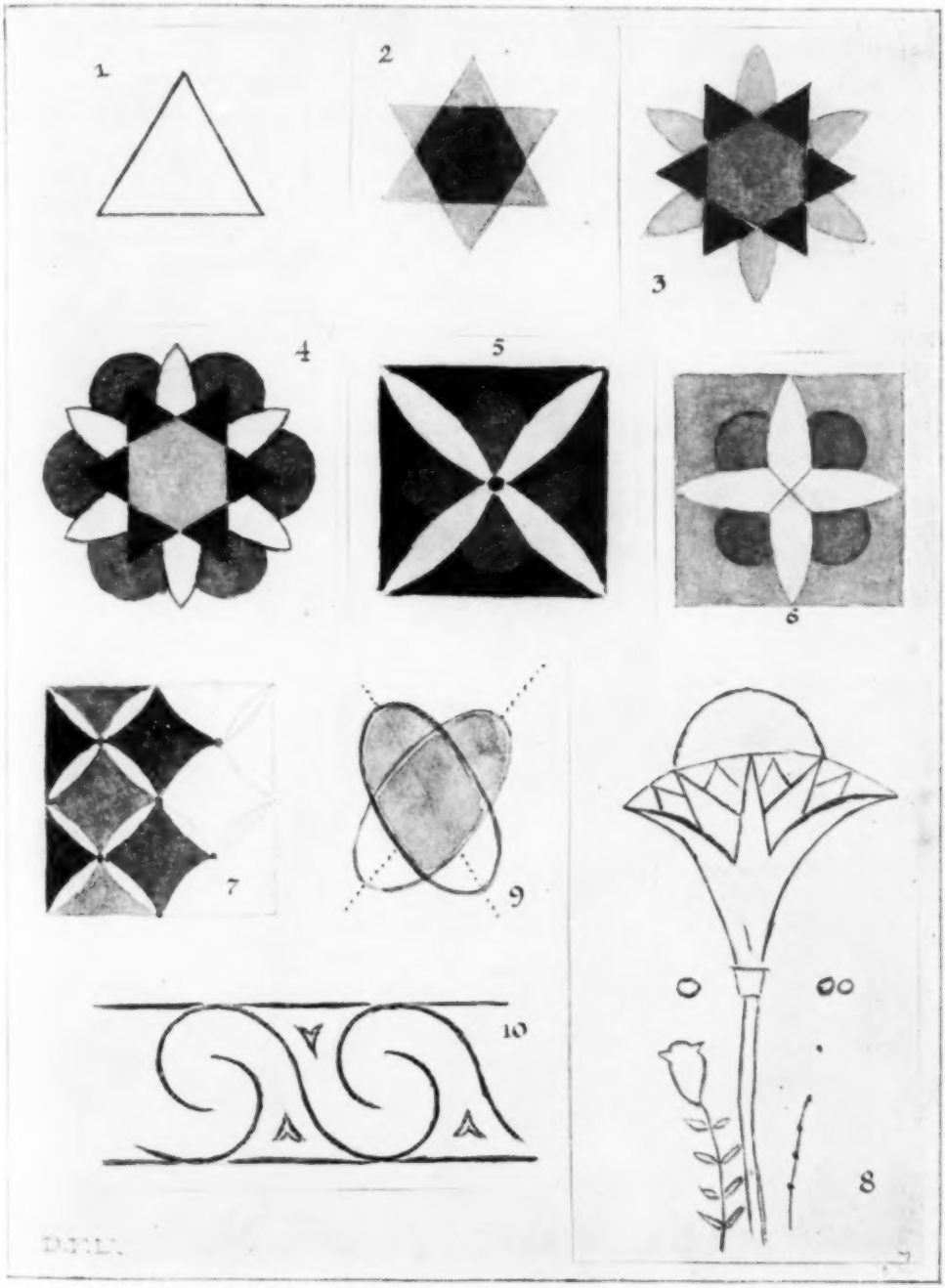


Plate II. Examples of evolutionary individual and class-work by grammar grade children under Professor Lincoln's instruction.

in power, and often nothing will accomplish our aim except individual help and *showing how*. We find bad habits in laying on color; bad judgment ("a poor eye") in bisecting a line; a tendency to slant everything to the right; and whatever effort we make to improve these defects is an effort to train the sense of proportion, form, and position, which means training the judgment — the highest intellectual faculty!

The age of eleven and twelve is a suitable one for improving manual power, also better lines, whether straight or curved, freedom of hand — power to use the wrist.

It is found that these children enjoy, yes love, the simple curves contained in these exercises. The simplicity is better suited to their age than is the vague harmony of a Corôt landscape; it is better training at their age than mass values and charcoal technique.

We slight our opportunities for reaching the feelings. It cannot be a gratification to spend great pains in producing ugly drawings with irrational outlines — it is not conducive to a love of beauty, either. Is it not a fair plea that the child should be gratified by the attractiveness of the work of his own hand, and that we should study to put such work within his power?

Color can be enjoyed as keenly as candy, and should be. It can hardly be wholesome to the spirit to shroud the walls in somber photographic browns and sooty grays. Children do not need bister and bitumen very much. Simple, bright colors and simple forms are a stepping-stone to the higher æsthesis, and they who do not take first steps often fail to take the later ones.

IT IS ONLY BY UNITED EFFORT AND CONTINUED ADVERTISING OF SUCCESSFUL PRODUCTS THAT PROGRESS IS MADE. — FARNUM.

The Betterment of Illustration

By Elizabeth C. Buckley

Art Department, Chicago Elementary Schools

IN PICTURE LANGUAGE, AS IN WORD EXPRESSION, IT IS NECESSARY TO DEVELOP A VOCABULARY

A CHILD in beginning to talk is able to express himself sufficiently for his need by use of disconnected and imperfectly formed words, — usually names of objects in which he is interested. In picture language also it is necessary to have forms for use in self-expression.

In the beginning of this work with the young children many teachers who draw readily illustrate their simple sentences and songs at the blackboard; others use charts which illustrate simple sentences, in connection with language work. When children begin to see how a picture can be made to tell things, to have a meaning — which by the way many little ones understand before school age, — it is well to tell a story which gives the class an opportunity to use forms familiar to all through observation or picture. The result, worked out in paper-tearing, cutting or drawing, is very crude indeed, because of the child's inexperience in working for form.

As illustration involves the original use of forms with which the pupil is familiar, it is necessary to have a clear idea of a form in order to use it creatively. The class should have lessons beforehand on unfamiliar forms likely to be needed in their illustrative lessons. Object drawing, — such as study of animal forms, characteristic action in games and occupations, toys, wagons, sleds, trees, etc., — should be given; and while the young child will not make a careful study of these forms he will acquire some power to draw through his effort to put his impression upon paper, and when he needs those forms or similar ones for his illustration he will have sufficient confidence in himself to attempt them. Pictures, dramatization, or any object that will attract attention through the eye, are better used at a period other than the illustrative lesson. When a child is studying either action or form he should not be encouraged to create. The two activities, studying and creating, should not be confused. Exercises in object drawing are intended to refresh his memory of form, but should not be used in such a way as to interfere with the free use of his own vocabulary of form in working out the problem of the lesson.

Illustrative drawing lessons are given too often without any preparation, just to see what the children can do. These lessons really require as much thought and care in development and as much preparation as object drawing. The story should first be told as a whole, talked over, and, if profitable, dramatized; then helpful pictures may be

shown and unfamiliar forms studied and drawn until the class have a thorough understanding of and an interest in the

1. "London Bridge is Falling Down." Paper-tearing by second grade pupil.

story. They should know it well enough to tell parts of it themselves. In the drawing period they should be given a definite part to illustrate, either by paper-cutting or drawing, and the only requirement should be to have the *thought* expressed. In these lessons, the pupil's selection and arrangement of the elements which enter into the illustration should be considered in the criticism, rather than their form or color. Much depends upon the selection of the story for reproduction. The incidents related in myths and fairy tales, while always interesting to children, are not always within their experience, and the forms are often so fanciful as to be beyond their ability to draw.

One of the functions of illustrative drawing is to encourage habits of observation. What a child recognizes as food for his creative activity, he is willing to attend to. Pupils while at home or on their way to and from school, are interested in observing different kinds of wagons, children at play, men at work, and happenings of special days, if they know they are to have an opportunity to use them in a picture. Direct preparation cannot be made for these lessons, as the problem will not be the same for all, but the forms that have been studied will be a help in the matter of execution.

Before the close of each lesson some time should be spent in giving the pupils a chance to see the work of all, not with the idea of criticism but for comparison of results. At this time children often do their best study, and a few well directed questions, such as "What does the picture tell us?" "Who has told the story best?" "Which shows most clearly some special point?" will be found helpful.

Care should be taken that the teacher does not let this class criticism and comparison develop into a language lesson by asking: "What is the matter with Jennie's drawing?" "Why do you not like it?" In answering, the young child often gets hopelessly tangled in his English and the effort to correct grammar takes time and interest from the art lesson. Then again, instead of studying the drawing, he is trying to

2. "Old Mother Hubbard and Her Dog." A drawing in colored crayons by a second grade pupil.

think what the teacher wants him to say.

The class should be directed to look

for good points in the drawings before them. Power of appreciation is worth more than power to criticise. Any one can select the bad things. If there is any criticism in the child's mind it should be criticism of his own work in comparing it with the best before him. It is well to have the same problem for all. A story having many pictures, such as some of the nursery rhymes, brings before the child's mind a confusion of images, and at the close of the lesson there is little chance for comparison of results, as different pupils have aimed to express widely different thoughts or else have tried their hand at all.

If all have the same thoughts to express the slow pupils will get ideas from seeing the work of the brighter ones, and if they are not able to execute as well will at least get an understanding of the story through the efforts of others, which in time will lead to ability to do.

When a story contains several pictures it may be used for a number of

3. "The Passing of the Lion." A charcoal drawing from memory of outdoor observation. Second grade.

lessons, by giving each pupil an opportunity to illustrate every part, and finally having a lesson in which pupils have a choice of parts. In this way fewer stories will be required and more time given for each. Too many teachers

4. "Near the River." A charcoal drawing reproducing a section from a picture determined by use of the finder. Grammar grade drawing.

feel that for every lesson in illustration there must be an entirely new theme. This is not necessary, as where we have a variety of mediums, one part may be worked out in paper-tearing or cutting, another in color and another in charcoal, without loss of interest on the part of the class. It is also helpful to tell in succession stories requiring the same landscape elements, as different stories calling for forest or wood scenes, or for houses, etc., thus giving the child an opportunity to use, and to add to, skill gained in previous lessons.

During the first three years of a child's school life there is no difficulty in getting him to attempt anything in illustrative work that is presented in an interesting way and is within his experience, such as simple dramatic representations of incidents from stories or from life; but the problem is to find a way to continue development as the pupils advance in grade.

Professor Fenollosa said that the

1. "Colored paper cutting." A street scene from memory. By a fourth grade pupil.
2. A charcoal drawing from memory representing a game near the school-house. By fifth grade pupil.
3. A charcoal drawing by an eighth grade pupil illustrating the lines:

"Firmly builded with rafters of oak, the house of the farmer
Stood on the side of a hill commanding the sea, and the shady
Sycamore grew by the door, with a woodbine wreathing around it."

work done by the children in the first grade is not approached in natural power until the fifteenth or sixteenth year. The need, then, is to find a way to bring about an orderly development of power without losing the directness with which the little children attack the subject.

Definite progression from grade to grade is somewhat retarded by the fact that the stories used in the first two grades are often repeated in the third and fourth, where invention should be stimulated by use of new subject matter, with which the pupils are more in sympathy, because taken from the literature of their own grade.

Beginning with the fourth and continuing through the higher grades, each lesson should be the occasion for presenting a specific and not a general problem in representation; a subject should be assigned for the lesson and the drawings in every case should illustrate the subject.

The teacher should first determine the point to be developed in the lesson and then find a story or quotation to bring out that point. Instead of asking pupils to represent a snow scene, which usually results in a meaningless picture with white ground and a couple of winter trees, a story or quotation involving the drawing of a winter scene with a definite background, or a game such as snowballing on the street, skating in the park, or building a snow-man in the backyard may be given, all of which will require the winter scene as a setting and at the same time will take care of the special point the teacher has in mind, whether it be the drawing of figures in action or the arranging of houses and

trees in landscape. The essentials of the story should be attended to before the setting, but the technique should be considered and a suitable environment expressed according to the child's ability.

In the advanced as well as in the beginning work in illustration, it is necessary to make a close connection between object drawing and illustrative drawing, by study of forms likely to be needed. Forms and colors, which are the vocabulary of illustrative drawing in all grades, must be clearly imaged and expressed, and must show power in drawing, and technique, as well as understanding of the principles of perspective, according to the grade.

In sixth, seventh, and eighth grades, the pupils begin to appreciate the poetry of nature and enjoy the study of landscape. In these grades, in order to preserve childish directness in self-expression and at the same time secure the refinement that comes through correct drawing and careful arrangement of forms, the study of pictures will be found valuable. Pictures may be studied in many ways and for many things. First, for getting correct mental images of objects and places that are difficult of access for study, to recall past experiences and to correct wrongly formed impressions. Second, for examples of perspective in the drawing of houses, roadways, fences, etc. Third, for arrangement of details of pictures to bring out the picture subject, namely, principal and subordinate masses. Fourth, for technique, to call attention to the value of tones and colors in expressing distance and in accentuating important parts. Fifth, for study of composition by the use of a finder.

Even in using the finder we should aim to preserve the story-telling quality of the picture by careful selection of a part which will show a subject well placed. The selections made with the finder may be enlarged and reproduced. The pupils may be encouraged to give a title to their pictures. In the drawing-books used by the pupils in our city schools, beginning with the fourth grade, are included a number of pictures aimed to be helpful in illustrative drawing, in showing directness of thought expression as well as composition. Pictures used in connection with the study of literature should not only have high artistic merit but should be full of imaginative suggestion.

While in the higher grades both teachers and pupils begin to feel the need of technical finish, we do not want it to be said of our high grade work that while it shows more thought and care in composition and technique than the work of the lower grades, it is lacking in content, or that all the improvement shown is obtained at the expense of originality.

I think we are all agreed that imagination cannot be developed in a better way than through reproduction of literature in picture form. Besides the stimulus to the imagination in this work and the information gained through observation in gathering his vocabulary, the child acquires, in his effort to show variations in sizes of forms needed in his illustrations, an understanding of proportion and a practical knowledge of perspective. He also gains in appreciation of literature through the effort to express the thought it contains. Psychologists say that the image is not

clear, that the child does not get hold of any impression until it has been expressed in some motor activity.

In working for a satisfactory mode of expression in illustrative drawing, pupils also come to understand better the importance of well related dark and light masses — a form of appreciation which reacts directly upon their study of design. In fact, this one phase of art work includes the essentials of both the others — object drawing and design.

> Most people go through life with no ability to deal with form and distance. The only angle which is recognized with any degree of precision by the ordinary individual is the right angle in which the lines are vertical and horizontal. Even this very simple angle is not clearly recognized if it is placed in such a position that its sides are oblique. When it comes to the more complicated shapes, the ordinary observer not only has no training in the recognition of these forms, but he definitely turns away from them. A person who goes about every day and pays no attention to the forms of the trees which he passes and the shapes and positions of the other objects of his environment except to avoid them, is cultivating a habit of seeing the objects of his environment only to the extent necessary to escape contact with them. Such a habit of neglecting objects is none the less a definite habit because it is negative in its results.
>
> CHARLES H. JUDD.

The Possibilities of the Pencil

By Florence I. Goodenough

Assistant Supervisor of Drawing, Public Schools, New York City

"For as with words the poet paints, for you,
The happy pencil at its labor sings,
Stealing his privileges, nor does him wrong;
Beneath the false discovering the true
And Beauty's best in unregarded things."

— LOWELL.

WITH the many new elements that are crowded into the topic — drawing in the public schools — it is easy to lose sight of the fact that after all the universal medium of expression is the pencil. Rightly employed the marvelous possibilities of the pencil are astonishing. Careful observation in hundreds of classrooms clearly shows that many teachers fail to understand the value of this simple medium. As a result the children under their instruction prefer to make use of other mediums. The pencil can be made to fairly speak. Witness the remarkable sketches of Charles Woodbury, James Hall, and others widely known through their work in the magazines and in books of the day.

The proper teaching of pencil-rendering is not difficult if correctly approached. The tendency of every child is to make fine, hard lines instead of the broad, rich stroke which gives character to the result. With firm, smooth lines, much of color, texture, and light and shade can be pictured in a suggestive manner. At first, detail should be almost entirely left out. The more a child "fusses" and "finishes" his drawing the more labored and unsatisfactory the result appears to be. The usual soft pencil and drawing-paper of the classroom can be used effectively for such problems as are suitable for school practice, but if it is possible to have two or three pencils, grading from hard to

Fig. I. Before attempting a problem in drawing the pupil should gain some facility in handling the pencil by practising strokes and lines of varying width and color.

Fig. II. The pupil should make occasional careful copies of good examples of pencil handling.

soft, of course much more of tonal effect can be expressed. The paper will respond better to the pencil if several sheets are placed beneath it.

First see to the condition of the pencil. It should be sharpened to a blunt point well supported by the wood, and the point flattened on one side to give it a form capable of making lines of all widths and qualities.

Before attempting a problem in drawing in light and shade the pupil should gain some facility in handling the pencil — by practising strokes and lines of varying width and color. The drill shown in Fig. I will give skill in laying tones flat and solid in appearance. The lines used to shade or to render a subject should be definite and firm in quality and should be parallel to each other with no crossing or patching. Such handling can be achieved with a little practice. The student should acquire a sure and fearless hand. After this is accomplished the pictorial sketch may be attempted (Fig. II).

Pencil drawings should be made small rather than large, inasmuch as the pencil is not adapted to covering large surfaces.

In beginning a sketch first decide upon the point of interest. Much must be omitted and many contrasts exaggerated in order to keep the attention centered upon this point. After deciding what the central point is to be, a light sketch, in as few lines as possible, should be made. These first lines must be accurate, and no erasing should be done. The eraser should never be used on any pencil sketch. The masses of light and dark are next considered, beginning with the planes in the important part of the drawing. Select the simple, flat masses and lay the tones in with the direct stroke already mastered in the preliminary practice (see Fig. III) The direction of the stroke can be made to express contour and texture, and

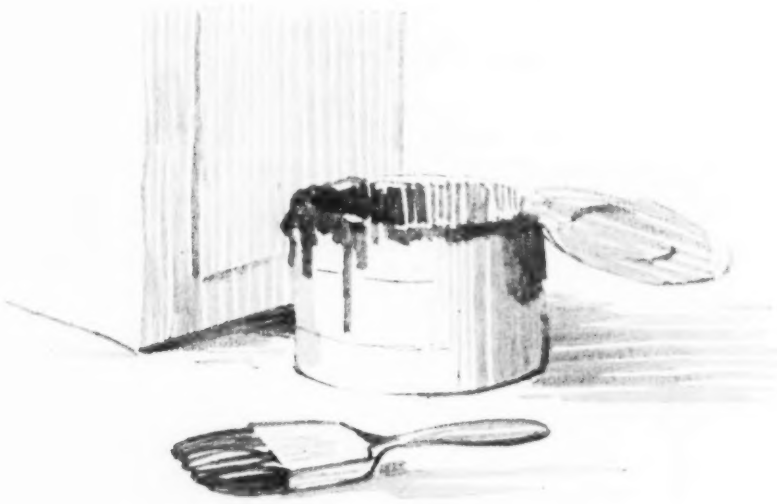


Fig. III. Never cross-hatch. Bright, strong effects can be secured without that.

should be carefully studied from that viewpoint. The sharp, vigorous accents of black will produce that contrast which brings out the light and sparkle of the sketch and adds so much to its beauty. The contrasts should be emphasized at the center of interest, and diminished into soft grays as they recede into the less important parts toward the background (see Fig. IV).

Fig. IV. Determine the center of interest and never lose sight of it. The strongest contrast should be found in this part of the picture.

Much of advantage to the student can be gained by copying good examples of pencil-rendering, trying to master the various lines used by the artist. Photographs of outdoor subjects may be translated with profit into pencil. Sketches from the window are always possible.

In selecting a subject consider the interests of the pupils. A strong appeal is often made by familiar objects about the room, such as chairs, tables, etc., and such familiar out-of-door subjects as chimney-stacks, lamp-posts, and letter-boxes.

It is easy to over-emphasize out-of-door nature subjects, such as flowers, fruit, and vegetables. The boys especially are more interested in the common objects of everyday life.

Anybody who becomes proficient in the use of the common lead pencil will agree with James Hall when he says, "The pencil is by far the most convenient and best medium for most of the work that is included in a well considered course of art instruction."

American Illustrators Who Help

By Eva Weiler Noble

Hamilton, Ohio

THE STANDARD MAGAZINES, ART GALLERIES IN MINIATURE, BECOME DOUBLY INTERESTING WHEN SOMETHING IS KNOWN OF THE ARTISTS WHO ILLUSTRATE THEIR PAGES

TO familiarize me with the magazine artists, my mother, in the long ago, before I could read, would hold up a magazine, as she cut the pages, and make me guess who drew each picture. What a charming game it was, — recognizing the earmarks of our best illustrators! One who has played this game for more than three decades may claim the right to say something about it.

To distinguish the work of one artist from that of another, a bit must be known about the different mediums used by the artists in transcribing their visions to paper or canvas, — pencil, pen-and-ink, crayon, charcoal, pastel, or brush. In these days, coloring with oil or water color is customary, — producing effects easily distinguished from those possible with the dry mediums.

Birch revolutionized the dress of children through his pictures of Cedric Errol.

To associate an artist's work with some story he has illustrated is a great help in fixing his style in the memory. Perhaps one of the most striking examples of individualistic work was that of W. A. Rogers (originally from Springfield, Ohio), who did cartoons, principally, but whom the children of the eighties learned to know for all time through his "Tobey Tyler" pictures. It will repay one to look up some of his clean pen-work. The impression an artist's style can make is lasting. Just at the completion of the Congressional Library, I was standing before one of the mosaic pictures in the Directors' Room, when the thought flashed upon me that here was "Eyebright" grown up. "Eyebright" was a much loved child-heroine, created by Dielman's clever pen over thirty years ago. Procuring a catalogue, sure enough, Dielman was found to be the artist of the mosaics. No one was ever better adapted to juvenile literature than Reginald Birch. If you knew his "Little Lord Fauntleroy" pictures, you can never mistake his style, for he is frequently met with in the pages of our present-day literature. Birch really revolutionized the dress for children through his pictures of Cedric Errol, with his black stockings and large lace collar.

In 1886 a new artist attracted my attention — an Alice Barber, who was drawing the pictures to a serial entitled "A False Witness." To-day, Alice Barber Stephens is rated as one of our greatest illustrators, and her wonderful

brush-work is known everywhere. Her love of detail is great, and when she depicts an interior view, even the pictures upon the walls are recognizable. Think of the refining influence such illustrations have in remote places!

Howard Pyle, who so recently passed from earth, ranks as a master, for many of our most eminent artists were pupils of Pyle. He found his proper element in depicting Knickerbocker New York characters, pirates, or fairies. Cocked hats, knee-breeches, buckles, and large cobblestones were his earmarks; and oh, the delight of his "Robin Hood"!

The nephew of William Hamilton Gibson, who drew such remarkable butterflies, is Charles Dana Gibson, the originator of the American Girl — a bit of a butterfly, too. It must have been in 1887 that James Whitcomb Riley told me to keep my eye on that new artist Gibson, whose meaningful stroke has been the despair of imitators ever since. Gibson's training began when three years of age, cutting out paper animals like those he had seen at the Zoo. Perhaps this is why he makes figures the all-important part of his drawings, backgrounds being merely suggested. To appreciate his stroke and the brain-power back of it, just try to copy one of his drawings.

All children know the pictures of Maxfield Parrish, the most charming of which are done for them. He is the son of an artist, so his positive genius is his birthright. The soft effect of his work is obtained with a stipple-brush; then, too, he often paints upon wood, which gives that smooth look. Who else could reproduce clouds and gnarled trees as does this poet-artist?

Edward Penfield is a poster artist, outlining in ink, then filling in with a brush. Has n't he an appropriate name?

Albert Wenzell always depicts aristocrats, never people of low degree. One expects to hear the swish of silk, the rustle of brocade, and catch the subtle suggestion of violets when looking at a Wenzell creation. The goddesses he portrays usually have their lips slightly parted, displaying dazzlingly white teeth. A large French mirror is an attractive object in scores of his drawings.

We have the Gibson Girl, the Wenzell Lady, and now comes the Smedley Woman — "Not too good for human nature's daily food." William Thomas Smedley has illustrated so many short stories and popular novels that one wonders at his uniform goodness. Never has his brush created a beauty, although the Smedley Woman is stylishly gowned and looks well-born. A young Finlander said to me recently, "I think the prettiest prettiness is when the soul shines through the face," and maybe Smedley thinks so too.

Howard Chandler Christy is an Ohio man whom the Spanish-American war brought into prominence through his stirring sketches. In the years since he has made a specialty of the pretty American girl; as have Henry Hutt (whose style may be known by his delicacy of touch); Cecil Clay (whose dry medium just catches the surface of the paper with each stroke); and Harrison Fisher, perhaps the highest paid illustrator in the world.

Arthur Burdett Frost's manner is in direct contrast to that of Wenzell; *never* has he depicted a man in a full-dress

suit. The Frost type wears a cap with earlaps and mittens; he has chin-whiskers and frequents country groceries

A typical drawing by Florence Scoville Shinn.

— the cracker-barrel orator. Frost was self-educated, being apprenticed to a lithographer at the age of fifteen, this same lithographer saying that Arthur had little talent for art and less for running errands. Frost's work is always unique.

Florence Scoville Shinn became known by her pictures of "Mrs. Wiggs" — the cabbage patch heroine. How terrible it would have been to have had any other Mrs. Wiggs! Her half-starved looking creatures are much like those immortal waifs Woolf drew for the funny papers years ago,— heart-rending blends of humor and pathos. She has rare sympathy with an author's ideas.

The Kemble "Coon" is a portrayal of the Southern negro as he really exists. Kemble's white people are intensely white-looking, — his "Colonel Carter," for instance. A cartoon by Kemble is worthy of serious consideration as an educator in national affairs.

Illinois may well be proud of her son, Peter Newell, although he has lived in New Jersey many years. He is a caricaturist. After making this statement it is cruel to add that John Kendrick Bangs says that Newell looks as though he had drawn himself. He occupies a field entirely his own, and the Newell creature is perfectly associated in my mind with this couplet of Riley's: "A man with eyes like two fried eggs, and a nose like a bartlett pear."

Albert Sterner is a most versatile artist, using all mediums equally well. The figures in his drawings seem nine tenths spirit, and one feels inclined to term him a romanticist. Learn to know him in "Prue and I."

Fred Yohn, of Indianapolis, originally, and Ernest Blumenschein, a Dayton, Ohio, boy, are much alike in their photographic treatment of subjects. We may add four other names to these two, making a group of human cameras who focus their work from the author's point of view,—Walter Appleton Clark, Louis Loeb, Jay Hambridge, and Arthur I. Keller. Every detail of Keller's historical pictures is correct. These men produce illustrations that look like reproductions of masterpieces.

Frederic Remington has given us a priceless series of Indian scenes—price-

less, because the life he depicted so realistically will soon be a thing of the past. Remington *lived* his pictures, having left his native state of New York early in life to become a cowboy. His place never can be filled.

George Wharton Edwards has reproduced Dutch life so realistically, that stay-at-homes, with appreciative eyes, may rub them a bit, when, presto! they are in Holland. His thumb-nail sketches are charming bits.

Do you know the sketchy illustrations of James Preston, May Wilson Preston, Frederic Dorr Steele, Henry Raleigh, and the author-artist, Rollin Kirby? It takes the keenest sense of discrimination to know these five from Glacksen, as they all put the same amount of ginger in their work. Don't you love the sketchy, scratchy stroke of Glackens? He it is who does the Bowery type so realistically, and you feel certain he could never re-draw one of his illustrations — they are so absolutely spontaneous.

Oliver Herford is a wit-sharpener. With merely the cobweb of a line, he delineates his irresistible cupids. His animals are all endowed with souls by his wand-like pen.

Sara S. Stilwell was a pupil of Pyle. The rollicking children she portrays in oil (using heavy brush strokes), remind one of character dolls — intensely interesting, but never pretty; notice, however, the legs and feet of these same children. Mutely eloquent, are n't they?

Jessie Willcox Smith and Elizabeth Shippen Green were also pupils of Pyle, and are studio mates; so it is not strange that their work is not to be told apart. The beautiful children these artists depict slip off the page and into your heart at a glance. Jessie Willcox Smith was a kindergartner before she was an artist, and in this way learned her best lessons for her life-work. "The Five Senses" ought to hang in every primary school-room in the land.

You are inclined to smile when you even think of a Fanny Cory youngster. These kiddies are to be known by

A typical drawing by Charles Dana Gibson.

their slightly enlarged heads and large, round eyes. They are not merely children of fancy, for they bring an

echoing thrill of your own childhood back to you.

Another sympathetic interpreter of childhood is Rose Cecil O'Neill (Mrs. Leon Wilson), whose pen and crayon always curve and circle (truly suggestive of dimples) and never, by any chance, do they execute a straight line.

"I opens my mouth and shets my eyes"

A cartoon by Kemble is worthy of serious consideration.

The last cry in method is the outlineless work of C. Coles Phillips, a Springfield, Ohio, man, who renders textures so admirably. His work is creating a furore just now, and his specialty is the delineation of the most appealing subject in the world, — even better than Sweethearts or Pretty Girls, for it is Brides!

Another artist of rare distinction is James Montgomery Flagg, whose crisp stroke and delightful knowledge of anatomy are a joy to encounter. I have been watching him for the last ten years and his work is never careless, as is that of many others who have established a name.

In August, 1911, death claimed one who is rated with the old masters — Edwin Austin Abbey. At nineteen Abbey was receiving seven dollars a week; at twenty-one he was earning ten thousand a year through his pen. The first Abbey picture to attract my attention was in a magazine for June, 1879, and was an illustration, in panel style, for a poem by Herrick. Since the early eighties Abbey had resided in England to get the proper environment for his Shakespearean illustrations. His "Quest of the Holy Grail," in the Boston Public Library, sings to the eye. It is "Parsifal" in the harmony of paint.

The pen and crayon of Rose Cecil O'Neill always curve and circle (truly suggestive of dimples).

Do you agree with me when I say that the modern illustrators are as leaven to our educational world? Surely the soul is fed in these days, and one cannot refrain from whispering a Charles Lamb grace before partaking of the contents of a newly arrived standard magazine.

THE SCHOOL BEAUTIFUL

Mural Decorations by Art Students

By Thomas Wood Stevens

Recently of the Art Institute, Chicago; now of the University of Wisconsin

It has been held as a reproach to our artists that they so often concern themselves with things which are isolated from life and use; and against the training of our art schools that they produce so little that looks forward to the function, rather than the processes, of art. Justly, perhaps, but our schools are not averse to experiment, to feeling their way. In this note I wish to set down the progress of an experiment carried on steadily for the past seven years, and desultorily before that, in the school of the Art Institute, Chicago.

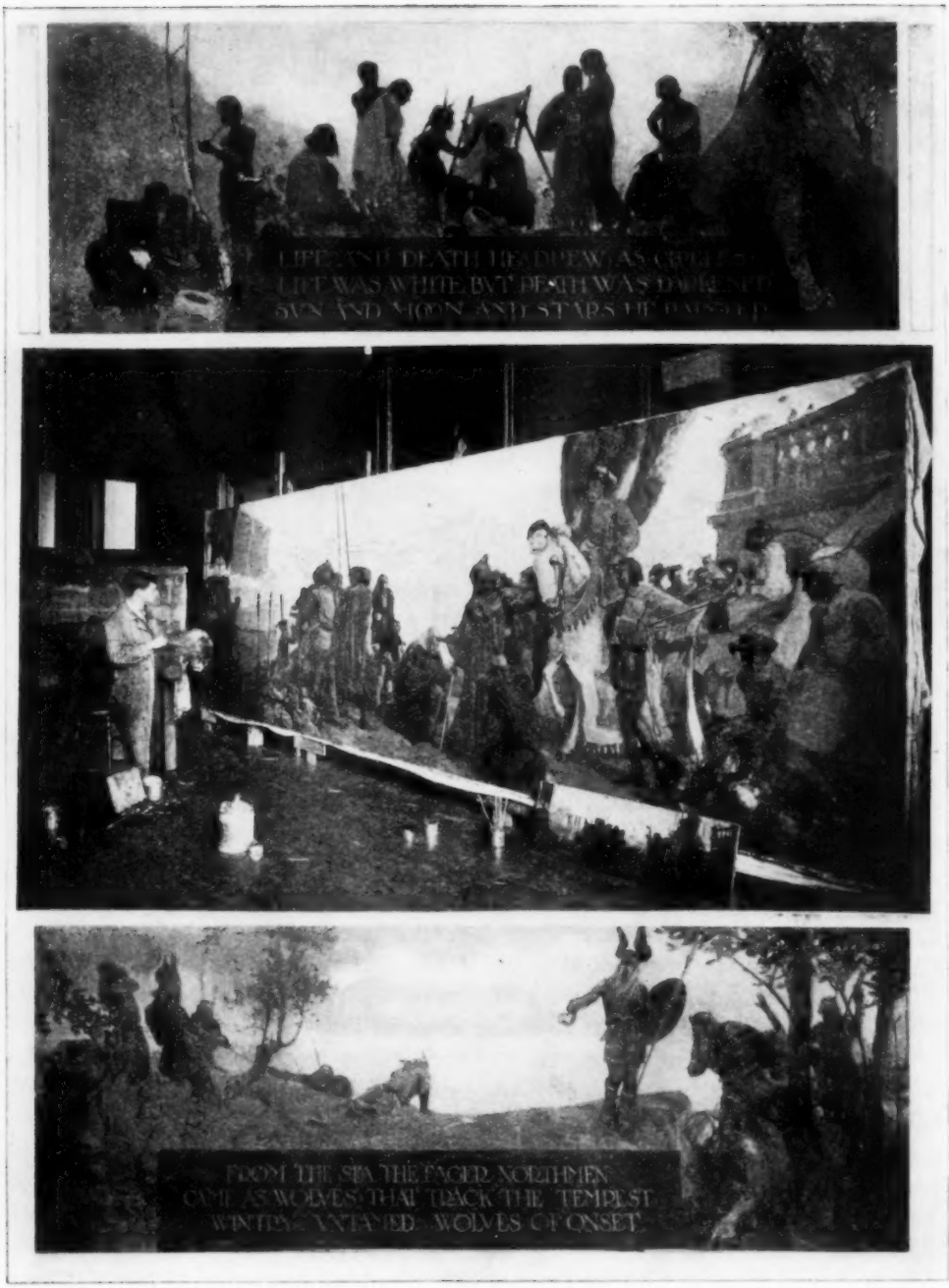
THE Institute had felt for some time the need of the student to carry out some large works, and to test his compositions by actually completing them. Then, too, there was talk of mural painting, and the lack of opportunity for the young painter to prepare for it. The apprentice system of the old masters as a method of training was often mentioned; and we were not allowed to forget that significant pictures, not competent studies, would be required of our graduates. There was an advanced class in illustration in the school. We had a large, low, undecorated refectory. We began at home.

The first year of the regular work of the class in mural painting was devoted to a series of panels for this refectory, and a second series of panels, larger, but lighter in vein, for the barber shop of the Union League Club. The work was tentative, and at first few of the students met any genuine decorative requirement other than the size. The class was conducted by Charles Francis Browne and myself, with the interested if conflicting advice of everybody else about the Institute.

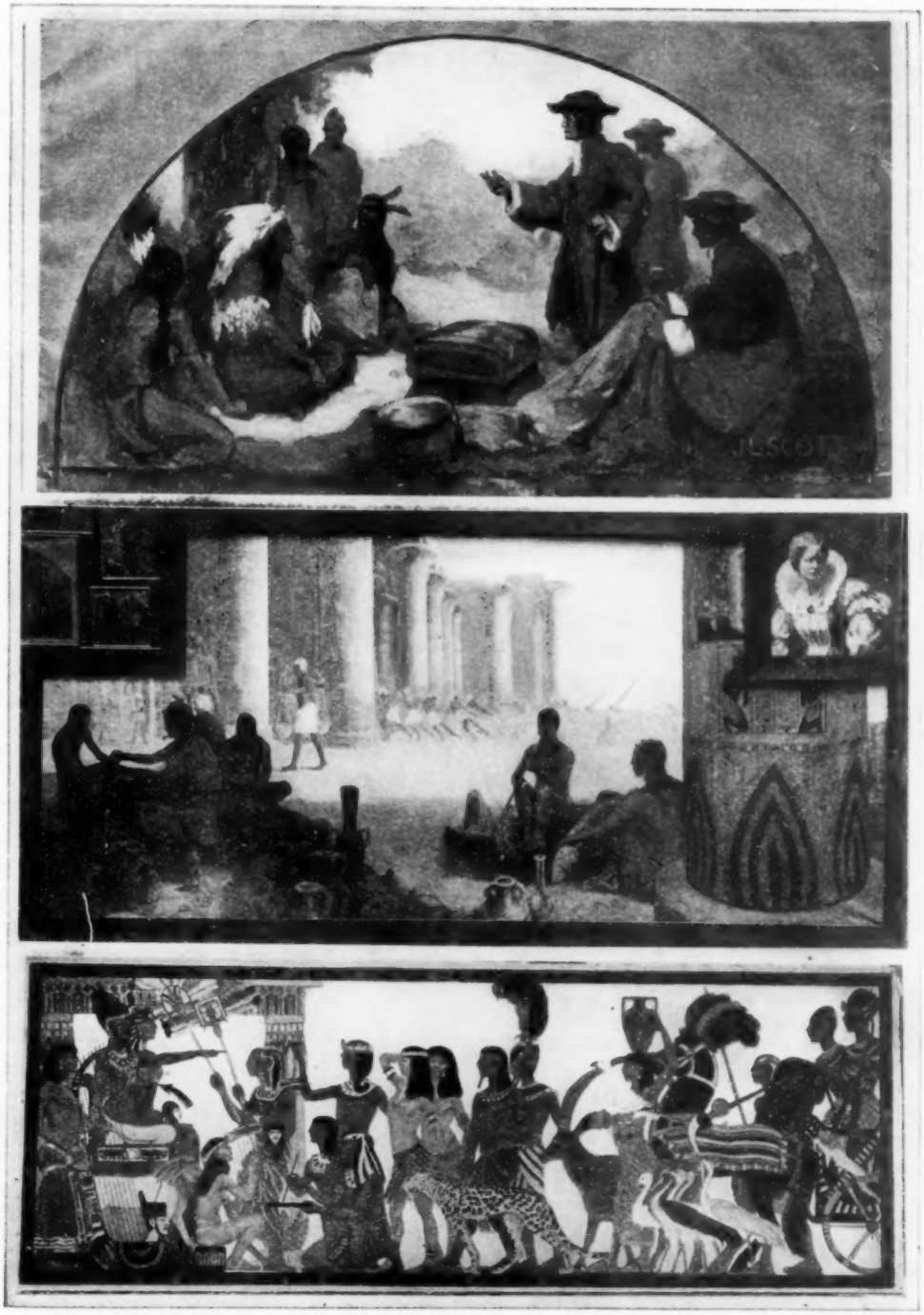
The students gained in courage, and maintained their enthusiasm. We completed the first two series, and then, casting about for worlds to conquer, and finding a demand existent in the public-school buildings, we began devoting the work to this field exclusively. There had been a few panels painted for schools before, and the need was obvious.

As I have said, we were offered no end of advice. Much of this was helpful, and we owe the most grateful acknowledgments to Messrs. Mucha, Cox, Blashfield, Poore, Grover, Sorolla, and other distinguished visitors. Since Mr. Browne's retirement from the teaching force, I have had the assistance in turn of Messrs. Walcott, Philbrick and Norton in the regular conduct of the class.

We found it necessary to realize, early in the work, that we must adapt our efforts to the buildings for which we were painting. Scarcely a month has passed, in the last six years, when we have not had called to our attention (with the implicit suggestion that we should emulate them), the solemn if pale beauties of Puvis de Chavannes. When this happens, we recall the



1. "Hiawatha," by Charles Wilimovski, pupil Chicago Art Institute. Mural painting in the Felsenthal School, Chicago.
2. "The departure of Columbus from Palos." Mr. Harry L. Gage at work on his mural painting for the Felsenthal School.
3. "The Landing of the Northmen," by William E. Scott, Felsenthal School, Chicago.



1. "William Penn," by Janet Scott, Chicago Art Institute. Mural painting in the Tilton School.
2. "Egyptian Craftsmen at Work," by Robert Herzberg. Original 4½′ x 10′. Tuley School.
3. "Egyptian Votive Offering." 4′ x 11′. Bertram Hartman.

height, the gloom, and gray cathedral stone of the Pantheon, thank our informants briefly, and then turn back to the elevations of walls in our school corridors and assembly rooms. Gray stone! we are lucky if we find so much as a wainscot molding, or a shape of any architectural sort that is not riddled with ventilator holes! But the problem of mural painting is to decorate the wall, not to criticise the architecture; we cannot solve it any more easily by regretting the given conditions. And we have learned to ask some very awkward questions of helpful persons who talk much of outlines, and of "flatness" as a mystical sort of virtue.

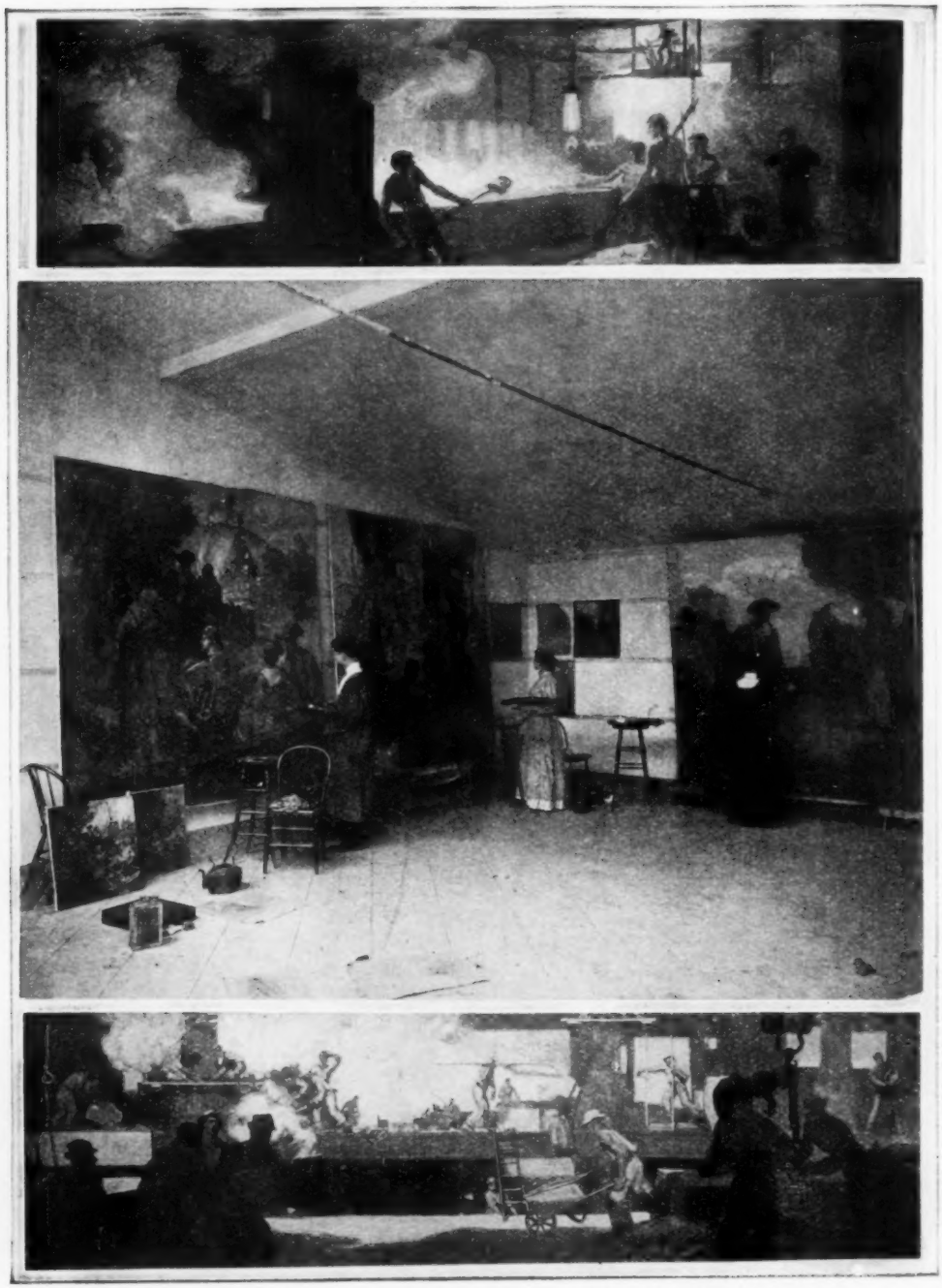
Frankly, in most of the work thus accomplished, we have encouraged the adaptation of subject pictures to decoration. Many of these have been historical, and nearly all American. The effort has been to project the great characters of our history against some scene suggestive of their environment, rather than to illustrate specific incidents. The history of the West, and of its explorers and pioneers, has bulked large. Some of these subjects, Marquette, La Salle, George Rogers Clarke, and the like, have been done over and over by different students, till they have come, perhaps, to gain some confidence and lose some freshness by repetition. Having seen them painted before, the student concerns himself little with matters of archæology and research, and devotes himself to the composition and painting, somewhat, as the books tell us, they did with the old traditional subjects — a wholly fortuitous development which we have seen little reason to deplore.

There are now in place, in the public-school buildings, eighty or ninety of these panels, spandrels, and lunettes. They vary in size from eight-foot lunettes to panels as large as ten by twenty-five feet. They are painted in oil on canvas, and are affixed to the wall with glue or white lead, as the special case may require.

The making of such a canvas is an expensive undertaking. The schools have, through various methods, paid the expense of canvas, carpentry, paint, and model hire; they have also paid, in all cases, prizes to the winners of the sketch competitions, so that the students who execute the works are not unrecompensed. There is another attraction in the class from the student's point of view: it gives the ambitious one a chance to show what he can do. Five recent winners of the highest art school honors, the foreign travel scholarships, have worked with credit in mural painting. And of the public schools for which the paintings have been made, few have failed to call for further decoration. Some buildings have five or six decorations in place and have already raised the money and made application for more. It is of course a small amount that can be scraped together, and but for this agency, the canvases could not be painted at all. In some cases, where the schools are in prosperous neighborhoods, further classwork has been refused, and the panels have been painted by graduates of former years — another step in the progress of the idea.

Painters who have visited the school buildings with us have given the panels, in place on the walls, the most pleas-

1. "Washington at Alexandria," Edward Spear. Mural painting in the Felsenthal School. Size 8′ x 25′.
2. "The Landing at Jamestown," by Gordon Stevenson. 9′ x 9. Smyth School.



1. "The Rolling Mill," by Margaret Hittle. Mural painting in the Lane Technical High School, Chicago.
2. A corner of the mural painting atelier, Chicago Art Institute.
3. "Building a skyscraper," by Gordon Stevenson. Lane Technical High School, Chicago.

antly respectful attention. In a building where there are instructed daily some eighteen hundred children, only twenty-four of whom were born of American parents, these pictures have a function beyond the purely decorative. In such a room we have represented Columbus Sailing, the Landing at Jamestown, La Salle on the March, Washington at Cambridge, Clarke on his way to Vincennes, and Lincoln. These hundreds of children must grope their way into American traditions, for the old world traditions of their fathers and mothers do not long hold out against the hard attrition of the American city. The children find in the paintings some hint of this America in the making. And we, when we look at them in an optimistic mood, may be pardoned if we forget how superior in critical faculty we have become, and may find in them a glimpse and a prophecy of art in service as it used to be.

WHAT THE LEADERS ARE DOING

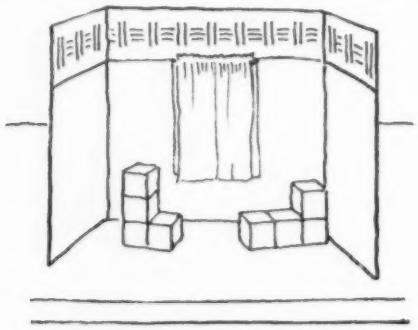
GOOD IDEAS FROM EVERYWHERE

NEW OPINIONS ARE ALWAYS SUSPECTED, AND USUALLY OPPOSED, WITHOUT ANY OTHER REASON BUT BECAUSE THEY ARE NOT ALREADY COMMON —*John Locke, in his Essay on the Human Understanding.*

Kindergarten

This section is in charge of a Committee of the Boston Froebel Club.

DOLL HOUSES. Individual doll houses, to be used on the tables occasionally in free invention with the building gifts, may be made of oblong pieces of cardboard, about twice as long as wide. Fold each short edge to the center and crease. Open so that the card will stand on the table. Cut a window in the back wall and hang



I. The simplest possible toy-room.

curtains. Any desired border may be used for the frieze, and other furnishings added as suggested in the illustration. A. M. B.

FLOWER RECEPTACLES. Beautiful and harmonious receptacles for flowers are joys in the school-room as elsewhere. To the teacher who is unable to afford them the following suggestions are offered.

Make a collection of the wide-mouthed glass bottles and jars such as contain olives, preserved fruits, etc. Many of these are really graceful in shape. Give them, on the outside, a coat of common, dark-green paint. Let dry and add a second coat; when this is thoroughly dry rub lightly with fine sand-paper to remove the gloss and you will find yourself the possessor of some very respectable and durable "pottery."

A bean-pot treated in this way is useful for budding branches in the spring, sprays of autumn leaves, and boughs of pine at Christmas.

Flowers with delicate, pale-green stems, like violets and nasturtiums, look best in clear glass. A finger-bowl past its first usefulness because of a nicked top is a treasure for the smaller blossoms, and a heavy tumbler with a flaring top serves all purposes for the larger — at a cost of five cents.

When quite at a loss for the right vase, a temporary makeshift may be made by covering a glass fruit-jar with a strip of cardboard of the shade required. Paste or pin the cardboard into a cylinder of the proper size and slip over the jar.

Use one of the little glass globes filled with partridge berries and leaves for the winter "shrine of beauty." These can be obtained at the florist's. Fresh sprays of this pretty plant may be gathered in the woods even in winter. Trailing over the sides of a squat green bowl, they are exquisitely pretty and last for weeks. Small branches of hemlock with little cones, and sprays of pine are as beautiful as flowers when arranged in Japanese fashion. Use jars rather than vases, and do not crowd. X. Y. Z.

A MIDWINTER PARTY. Notwithstanding the recently aroused enthusiasm for fresh air classes in our public schools we still are reluctant to give the kindergarten children the outdoor play period after the snow comes. There are difficulties, to be sure, but none so great that they cannot be overcome, and the joy of an outdoor party in snowy winter can hardly be measured.

Choose a day when the sun shines bright and there is plenty of snow on the ground, the air clear, but not too cold. Then, with children properly dressed, coats buttoned from the top to the very lowest button, hats, mittens and rubbers properly adjusted, lead them into the school-yard for a snow party.

Enlist the services of a third or fourth grade boy to roll a large ball of snow — one at least a

foot in diameter. A group of kindergarten children can roll a small one and another even smaller than either. The children will lead you to the desired arrangement of these balls, placing the middle-sized ball on the large one and the smallest one on top of that. Arms should be added by the children and any realistic accessories which may be suggested and are available.

The snow-man made, the children form a circle around him and play "Looby-Looby," using following words:

We 'll make the snowball soft and round,
We 'll hold it in our hand,
We 'll toss it high,
We 'll catch it low,
Then throw it while we stand.

Here we dance "Looby-Looby," etc.

Groups of children may make small snow-men on plan of large one and place them in a row on the fence or on the door-step. Choose the best two to guard the entrance to the yard, placing them on the gate-posts. Another should be chosen to rest on the window-sill, when he can peep in at the children after their return.

Borrow enough sleds of older boys and girls to give every child an opportunity to have a ride and also to give someone else that pleasure.

Games in which all of the children can play at the same time can be used to good advantage, such as, Galloping Horses, In and out the Window, Hill-Dill, Skating game, "In the Winter Bright and Gay," The Merry-go-round, etc.

All too soon it is time to return to the kindergarten. Leave a little snow-man at the head of each filing line in the school-yard as a surprise to the boys and girls who have been kind to us. Then all jump on the train — an electric train, which makes no noise, and ride into the kindergarten.

Exercises of a quiet, rhythmic type may be given while the children are becoming accustomed to the temperature of the warm room.

If there should be any wet clothes, or damp shoes, dry the articles quickly, letting no child sit in damp clothing. Prepare for such an emergency before going out-of-doors and it will take but a few minutes to remedy the difficulty.

The happy faces of the children as they take up their work will outweigh any obstacle which may be presented against such an excursion into the snow. L. B. P.

A HOME-MADE HECTOGRAPH

Materials Needed

3 oz. sheet glue.
1 lb. of glycerine.
1 rather large shallow pan.
1 bottle hectograph ink.

Soak glue in 12 tablespoonsful of water for 15 hours (or overnight). Then place on stove until it is melted; add the glycerine and let it come to boiling point. Strain through a cloth into pan and cool.

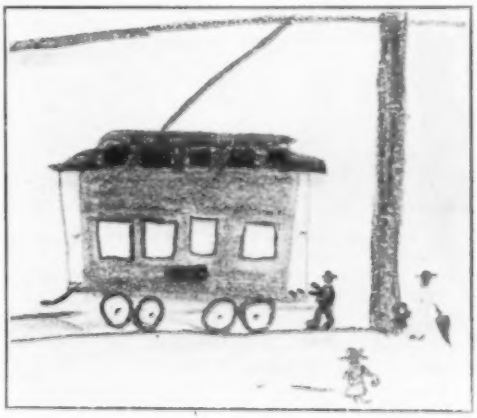
Make one copy, on smooth paper, with hectograph ink, of whatever you may wish to reproduce (invitations for Mother's Meeting, forms to be cut out, or filled in, etc., etc.), and lay it on the hectograph for two or three minutes. Many copies may be made from it.

After using, always wash off with tepid water and soap. If the surface gets rough melt it over again. L. H. M.

Primary

OBJECT DRAWING. *In place of the usual variety of lessons from different sources, the following quotations are made from the most important contribution of the year to the literature bearing upon elementary art education, namely, Professor Sargent's book, "Fine and Industrial Arts in Elementary Schools."*

Representation in Grade I. The most valuable outcome of the work of the first year appears

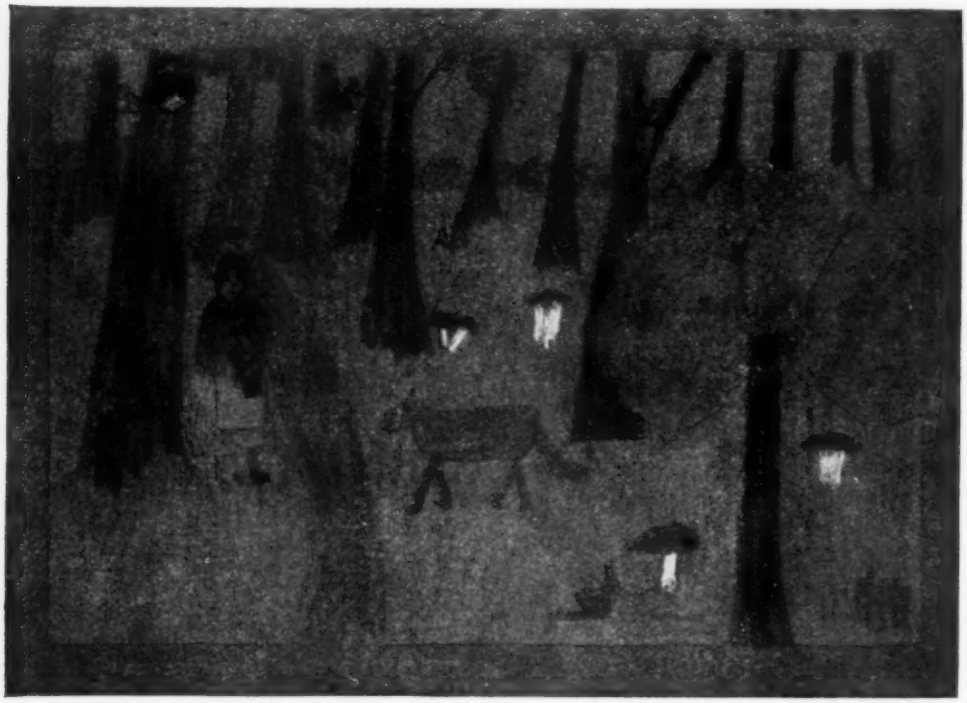


II. An Electric Car, drawn in colored crayon by Esther Lester, I, Swissvale, Pa.
Esther has managed her verticals and horizontals very well indeed for so young an artist. She is six years old.

to be the forming of a habit of drawing things uppermost in the interests of the children. The greatest progress appears to come when the instructor works at times with and for the children in order that they may see better ways to obtain results. Representation in this grade should consist in general pictorial expression of things of interest to the children, with much encour-

agement and little criticism from the teacher. Their other lessons, their toys and games, incidents of their experiences, in fact, all those things which are most vividly in mind and which form the topics of their conversation, are appropriate subjects for drawing.

A definite beginning may be made in developing ability to draw more truthfully by devoting a number of lessons to the same subject, with a few suggestions regarding it at each lesson.



III. "Little Red Riding Hood," an illustration drawn in colored crayon by Elsa Lensky, II, St. Petersburg, Russia. Miss Marie O. Petersen, teacher.

Did any American child ever think of putting mushrooms in his forest? Or of adding a rabbit, a squirrel and a wild bird to the scene?

REPRESENTATION IN GRADES II AND III. The growing interest of the children in the quality of results makes worth while a more careful and detailed study of objects than was advisable during the first year. The chief additional contribution in the way of special technical instruction which these grades can make, appears to be a somewhat intensive study of a few typical things conducted by devoting a series of lessons to each, for the purpose of enabling the children to draw these particular things well. For example, they should examine the houses they are drawing to see if any of them lean; they should attempt to make the sides, door, windows, and chimneys exactly vertical.

If the subject for illustration is a bird, the first drawing may be followed by a study of the shape of the bird's head or how its feet are placed upon the ground, and the angle at which it stands. The bird may be drawn on paper, modeled in clay, cut from paper, painted or drawn in color. Pictures may be collected illustrating the bird in various positions and activities, and some of these may be traced and cut out.

After a child has gained what he can from observation, and his progress in representing a given object seems to have reached its limit for the time, his powers of expression receive a fresh impulse if he can see someone draw skillfully the things he is trying to represent. To furnish such an impulse by drawing with facility before the children is one of the most valuable contributions a special teacher of drawing can make during these two years.

The interest that is evident when a group of children work together upon a single topic, de-

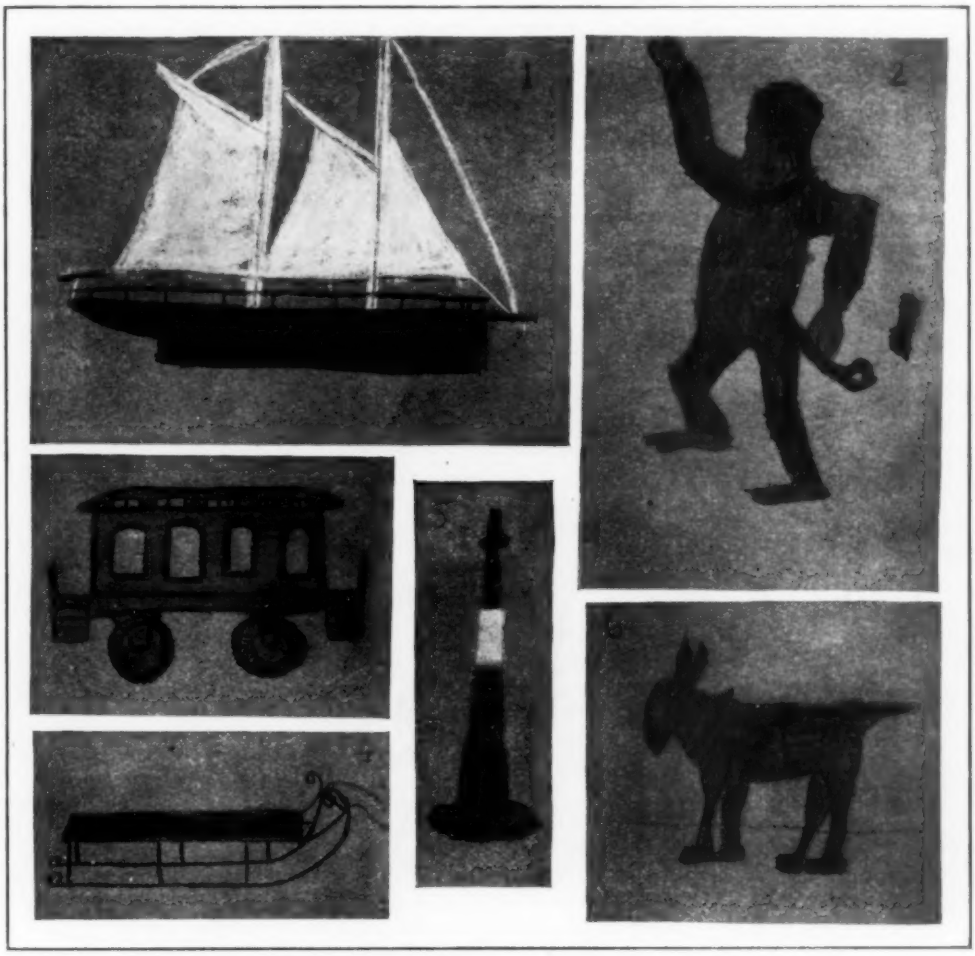


Plate IV. (1.) A Toy Boat. A chalk drawing by Beatrice Cloutier, III, Augusta, Maine. 2. A Toy Monkey. Drawn in colored crayon by Stella Frenette, II, Bellows Falls, Vt. 3. A Toy Car of Iron. Drawn in colored crayon by Philip Boulet, III, Westerly, R. I. 4. A Sled. Drawn in colored crayon by Leonard Kassing, II, Fostoria, Ohio. 5. A Trumpet. Drawn in colored crayon by Alfred Lima, I, Oakland, California. 6. A Toy Donkey. Drawn in colored crayon by Dorothy Trout, IV, Swissvale, Pa.

veloping the description as they proceed, is a factor which may be utilized. For example, when the beginning of an illustration of some topic in which the children are interested is made on the board, all are generally enthusiastic in contributing a share of the result. Such topics as a farm, a city street, a wharf, a market, a harvest field, are excellent. The results of such instruction should continually be absorbed into the general descriptive drawing and become apparent there.

Representation in Grades IV and V. One of the most important technical contributions which grades IV and V can make to a child's skill in drawing appears to be ability to represent general proportions correctly. This, more than anything else, helps him to realize his wish at this age, "to make things look right." Children readily discern whether a drawing is "too tall" or "too short," as compared with the object, and they develop ability to estimate relative lengths of parts with some degree of precision. Much should be done toward training the eye to swift and unerring perception of the agreement or disagreement of the shape of the drawing with that of the object. Pencil measurements are

seldom so reliable, even when carefully taken, as the visual perception.

Constructed objects, such as toys or implements, offer excellent opportunity for practice in representing correct proportions.

A second appropriate topic for these grades is a study of a few simple problems of appearance of objects in different positions, for example, one object beyond another, or the same object turned at different angles. The solution should constitute a definite piece of work for the pupil and

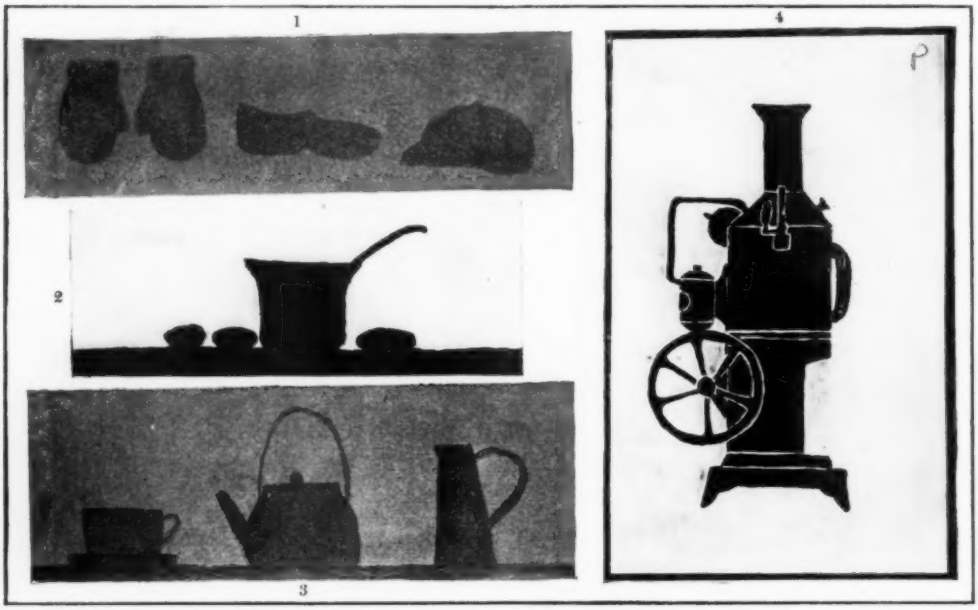


Plate V. (1 and 3.) Mittens, Cap, and One Rubber (probably the boy had lost the other one!). Drawings from common objects, in ink silhouette, by Henry Hershom, IV, Boston, Mass. 2. A Stew Pan with Potatoes. Drawn in ink silhouette, by Garnette Higbee, IV, Marengo, Ill. 4. A Toy Engine. Drawn in ink silhouette by Harvey Sherbourne, IV, East Oakland, California.

should be sought by observation, by experimental sketches, and by the collection and study of pictures which represent such effects.

Such exercises as Professor Sargent recommends are illustrated, in part, in Plates II to V.

JINGLES TO ILLUSTRATE. The following are taken from an illustrated booklet entitled, "Kitchen Jingles," by Ethel Sexton, IV, Brattleboro, Vermont.

Kettle, kettle, puff and steam,
We 'll have tea with cake and cream.

Out of the spring the water we 'll dip
And raise it to our thirsty lip.

When my mother sweeps the floor
I like to help her more and more.

When she needs the black dust-pan
I get it just as quick 's I can.

On winter nights when winds are cold
Over the fire is the tea-pot old.
The amber tea with joy we drink
As by the fire we dream and think.

This is our coal-hod black and sooty,
It 's useful though it 's not a beauty.

Here is the useful water-pail
With its semi-circular bail.

In our window facing the light
Grows our scarlet geranium bright.

These were accompanied with appropriate drawings in silhouette. There seems to be no end to the possibilities in delightful work of this sort — correlating drawing with the language work.

From another booklet, entitled, "Baking," by Frederick Tressel, V, West Newbury, Mass., the following verses are taken as the text for complete illustration:

I like to see a mixing bowl,
Flour, eggs, and sugar, too;
I know without your telling then
What Mother's going to do.

I like to see the baking dish
And smell the frosted cake.
I 'm sure to be quite close at hand
When Mother 's going to bake.

Grammar

DRAWING FROM OBJECTS [1]

I

1. What do you mean by Object Drawing?
2. Why do you teach Object Drawing?
3. How do you teach Object Drawing?

More and more, not only in the United States but in Europe, the art work in the elementary schools is being put into the hands of the grade teachers. However much of a calamity or mistake this may seem to some, it is at least evidence that school boards and officials have ceased to regard Art as a highly specialized subject, since they place it on an equality with those subjects that can be taught by any teacher. In view of this fact a group of about fifty grade teachers, representing the southern, western, middle western and eastern sections of this country, were asked to submit for discussion and possible answer three or four questions in connection with the drawing which they had to teach. The three quoted above are representative of those which referred to Object Drawing. The answers that follow came, some before and some after, discussion of the questions by the same group of people. As these teachers did come from the south, east, and west, these questions and answers may be taken as typical of the attitude of the grade teacher toward that much discussed phase of art work — drawing from objects — and so worthy of the thoughtful consideration of those of us who are more directly connected with the work.

To take them in order:

1. What do you mean by Object Drawing?
   "Object drawing is drawing from type solids and those objects that are similar in shape."
   "Object drawing is drawing anything directly from the object."
   "Object drawing is drawing the common things about us that are made by man. I would exclude all plant, animal and human forms from this work because it is easier to teach principles from simple things than from those of subtle proportions and details."

2. Why do you teach Object Drawing?
   "I teach it because it is a part of the prescribed course in drawing. I 've never thought why it was a part."
   "I teach it to train the children to observe."
   "I teach it because it helps give children the power to express themselves graphically."

3. How do you teach Object Drawing?
   "I use type solids, giving much practice in observing different positions above and below the eye, near and far, until they are familiar with the principles of foreshortening and convergence. Then we draw from objects like cylinders and rectangular solids."
   "I give first, much practice in rapid sketching from all kinds of objects in different positions, so that their eyes will see quickly and their hands record rapidly."
   "I give them key lines first, that is, I draw on the board three lines, one vertical and two horizontal, representing three different edges of a box and ask the children to finish the drawing so that it will look like a box."

The discussion brought forth two other questions which elicited some interesting information and shed light upon the relative merits of different methods of presenting this subject. The questions were, "Do you like to teach Object Drawing?" and "In what grade would you begin to teach it?" The first question — "Do you like to teach Object Drawing?" — drew out three interesting statements which may well impel a supervisor of drawing to pull his thinking cap far down over his ears.

"I can't teach a lesson in drawing objects without losing my temper." This came from a fourth grade teacher in a large city where the "type solid first" method was used.

A sixth grade teacher contributed the reverse side. "I like to teach object drawing better than any of the other art work because there are definite rules of perspective and so I know when the drawing is right. It 's just like mathematics and that is my specialty."

Another said, "I used to hate it, but since I 've learned to use the key lines and draw out of my head I 'd like three periods of drawing a week instead of two."

The other question, an outgrowth of the big "How?" — "In what grade would you begin to teach Object Drawing?" — made clear the fact that there are still places where it is possible to find children in the primary schools trying to grasp the meaning of "level of the eye" and struggling to make perfect unpointed ellipses, while there are yet others who have no drawing from objects but who spend all their time in brushwork with ink and water color.

The balance of testimony was to the effect that Object Drawing should and did begin in the fifth grade with a study of the foreshortened circle.

Of the questions quoted it is perhaps needless to say that the ones asked the greatest number of times were, "How do you teach?" and "When do you begin this subject?" — the two things that are essential from the standpoint of the grade teacher. She may occasionally find time from her multitudinous duties to question "Why?" but for the most part she has accepted the fact that hers is not to question but to do, and she trusts the rest to her supervisor who, if worthy of the confidence reposed in her, must have a "Why?" before she can measure results or suggest an effective "How?" and a reasonable "When?" The foregoing, coupled with the oft reiterated state-

[1] Here is something "from life," by a live teacher. It will furnish enough for grammar teachers to think about for one month at least. — EDITOR.

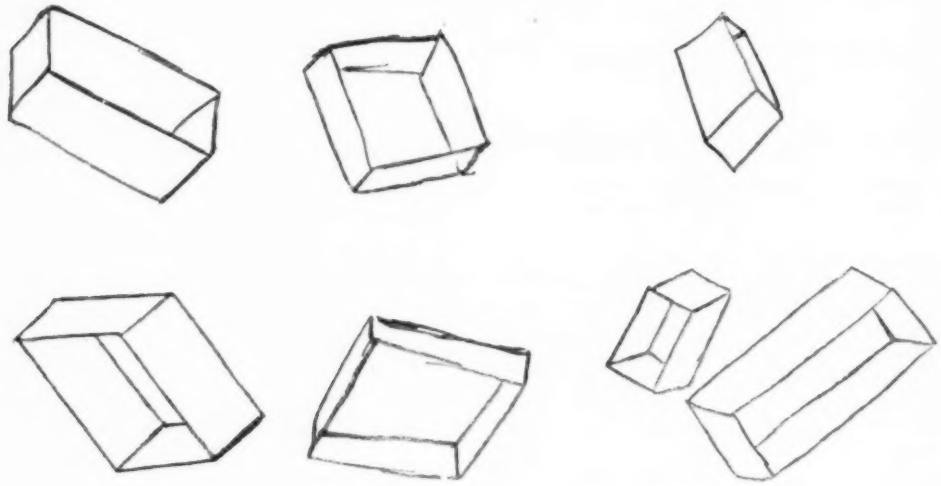


Plate I. SKETCHES CUT FROM SHEETS ON WHICH EXPERIMENTS WITH DIFFERENT KEY LINES WERE MADE.

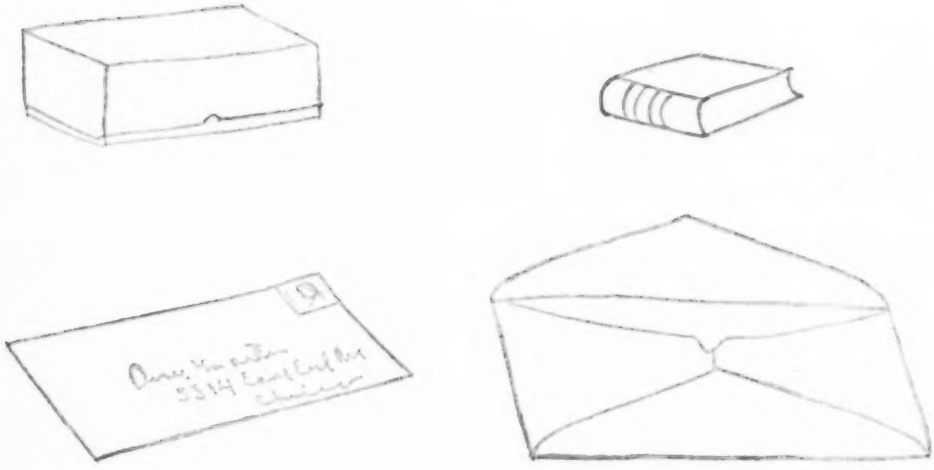


Plate II SKETCHES MADE AFTER OBJECTS HAD BEEN LOOKED AT FOR THE PURPOSE OF UNDERSTANDING THE CONSTRUCTION AND KEY LINES GIVEN BY SOME CHILD IN THE CLASS.

Plates I and II. Typical results of work, by grammar grade children, under the supervision of Miss Whittier.

ment that the only preventative for hardening of the arteries of teaching was to constantly view subject or method through the eyes of an outsider or with the express purpose of meeting the questions of those in another line of work, lead to the series of lessons here described. The convincing tone of the speaker who said, that crystallization was the almost inevitable result of long experience in teaching one thing and that the only dissolvent for such crystals was laying oneself open to jolts of criticism and questions, lead to the writing of this article. It presents nothing new but attempts to put into concise and concrete form a series of lessons which answer some of the grade teachers' questions concerning Object Drawing.

The lessons covered a period of ten weeks, two hours a week, and were given to a class of sixth grade children whose previous work in Object Drawing had been along the following lines:

Fourth Year. Representation, in two dimensions only, of various common objects of simple construction and easy proportions. The emphasis was placed upon proportion.

Fifth Year. Common objects involving a study of proportions and slants. An attempt to represent roundness was made in the latter part of this year but the main emphasis was still upon proportion. This in the belief that proportion is fundamental.

If half the time we have spent in drilling on the appearance of the foreshortened circle, above and below the eye, had been spent in trying to represent the right proportions of objects, children could draw when they reached the high school and men and women so trained could draw when they left school. "I like object drawing because I know by the rules when it is right," to quote again from the mathematical-minded teacher. Might she not have had as keen a joy in teaching proportion if the subject had been presented to her that way or she had been fortunate enough to have had the experience of a sixth grade boy who suddenly exclaimed, "I can draw, it 's nothing but mathematics once you get the proportion idea!"

The work with this group of children was based upon the belief that every one desires the ability to draw. That any one can be taught to draw anything if he knows that construction and proportion are fundamental and that geometric relations are the easiest to perceive.

First Lessons

Sketch the key lines of a box on the board.

"These lines represent three edges of a box. Can you complete the drawing so it will look like a box?" All try on paper. Have as many as possible show results on the board.

Refer class to a box. Bring out the statement, that in the real box all vertical edges are parallel. The top and bottom edges are parallel.

Question: "Do they look so in your drawing?" If not, correct.

Give another combination of key lines suggesting a different position or proportion. Follow this by much practice at board and on paper, giving key lines of various proportioned boxes in every conceivable position. See illustrations, Plate I.

Second Group of Lessons

First ten or fifteen minutes, memory drawings of boxes drawn in preceding lessons. Criticise these by questions like the following:

a. Are all the lines which represent edges that are actually parallel in the real boxes drawn so they look parallel?

b. Are the lines that represent edges which would be upright in the real box vertical?

New topics: 1. Boxes with covers — show real box to give type of cover desired. Then give the key lines.

2. Books. Key lines given first. Children place books in position indicated by key lines. Then put books away. Sketch key lines, finish drawing to represent book. Test by replacing the book in position. "If it looks like your sketch it is good." If not, the sketch is wrong and we must discover the error by applying the test of our questions as to parallelism and uprightness. In connection with this topic the class discovered that one difficulty was that the book did not have any vertical edges but that if they drew it first as though it were a box and then curved the lines they were successful.

3. Sketches of different envelopes. Envelopes studied first for construction. Key lines given. See illustrations, Plate II.

Third Group of Lessons

Rapid sketches from rectangular objects placed in various positions. This was the first test of their ability to apply a method of procedure, and also to visualize angles. Nothing was said about how or where to begin. By observation and by questions it developed that about half of the class had started with those edges which would correspond to key lines, thus proving that they were beginning to form a habit of looking for salient characteristics.

Not over a third of the class succeeded in getting the right angles. They were, however, conscious of this lack, many volunteering the

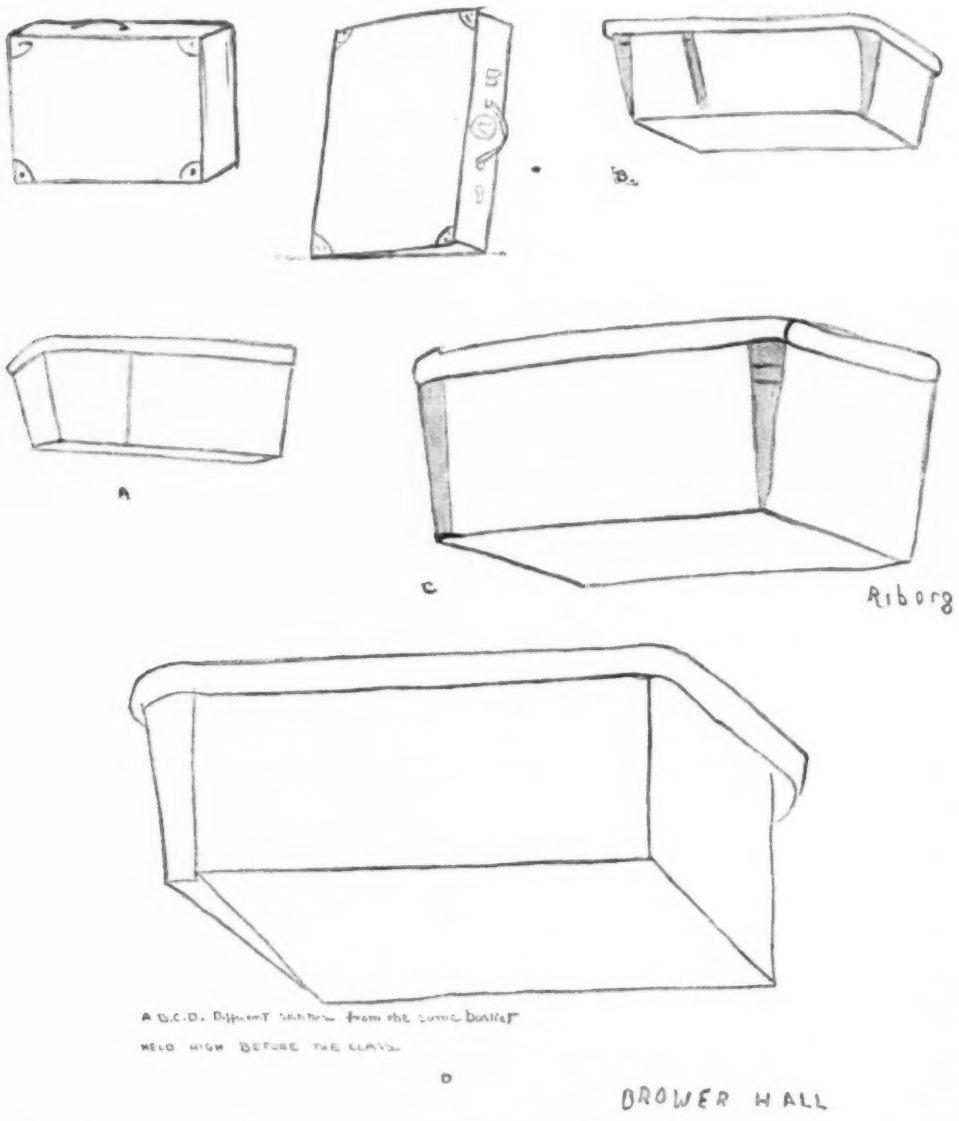


Plate III. Time sketches by grammar grade children under the supervision of Miss Whittier.

statement, "I could n't make the lower edge look right." See illustrations, Plate III.

Fourth Group of Lessons

Obviously the thing to do now was to attempt a careful drawing from the object, we knew what to look for. The class contributed this definite order of procedure and it was written on the board lest we forget.

First. Think of the object as made like a box and begin just as we began the drawings of boxes.

a. Sketch the line which represents the nearest vertical edge.

b. Sketch either top or bottom edge that goes toward the left.

c. Sketch a top or bottom edge that goes toward the right.

d. Sketch the other vertical edges to determine the length of the object.

Then came the important question: How are we going to know when the angle that the top or bottom edges make with the near vertical edge is right?

Various devices were suggested and tried, but the one liked best by the children was the following:

First sketch the vertical edge which is nearest, then hold your paper up in a vertical position (they used pads, so this was easy to manage) until the vertical line seems to come just above the real vertical edge.

Next, still keeping the pad in this position, place your pencil or ruler so that it looks parallel with the edge you are trying to draw. Put your paper on the desk and draw the line. Do the same to find the angle on the opposite side. "But," says some one, "is n't there danger that the children will rule those lines?" Of course there is, and of course they did, some of them. What harm if they did? The thing they were trying to learn was how to get angles right, not how to make a certain quality of line. We lose many an opportunity to strengthen our own power of self-control by criticising all the errors we see in a piece of work instead of choosing the one important thing to teach and sticking to it! The sketches made from the object were, like all preceding sketches, criticised by the question referring them to the parallel edges. See illustrations, Plate IV. In the sketch marked C some attempt was made to suggest the character of the book's edges by the lines used. This was individual work, that is, the instructor showed each child how to do it by sitting down and working before him. Sketches D and B were colored with flat tones of water color. This was done only when the sketches were approved and had passed satisfactorily the kind of criticism indicated by the illustrations on Plate V. Sketch B, Plate IV, shows a type of work introduced in the latter part of the series of lessons. The chalk box was sketched from the object, then the pupil was asked to introduce something else into his sketch, suggesting a group. The whole drawing was colored not naturalistically but decoratively, the children selecting a color scheme which, according to previous work in color, seemed good to them.

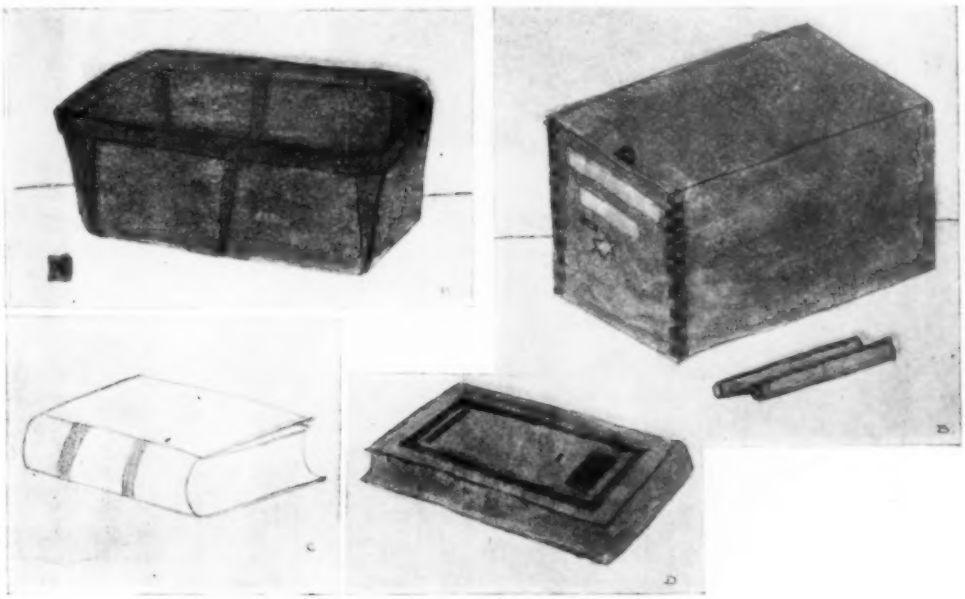


Plate IV. Sketches made from the object with no mention of vanishing points.

Before this final work from the object another group of lessons had to be given, for it was discovered that even when the angles had been carefully studied and the object criticised for parallelism

that oftentimes the top was so narrow that our reason rejected what our eyes told us was true and we straightway changed the angle. Thus lessons were needed to explain foreshortening and to drill on making things look flat. See illustration, Plate VI.

"Cannot all this be done in less time?" Yes, in the class finished his drawing or reached a place where he could do no more without help, instead of wasting time by doing nothing or interrupting and disturbing the rest of us by raising his hand he was to work on something else, that is, try to sketch something else in the room, or something he had brought from home because he

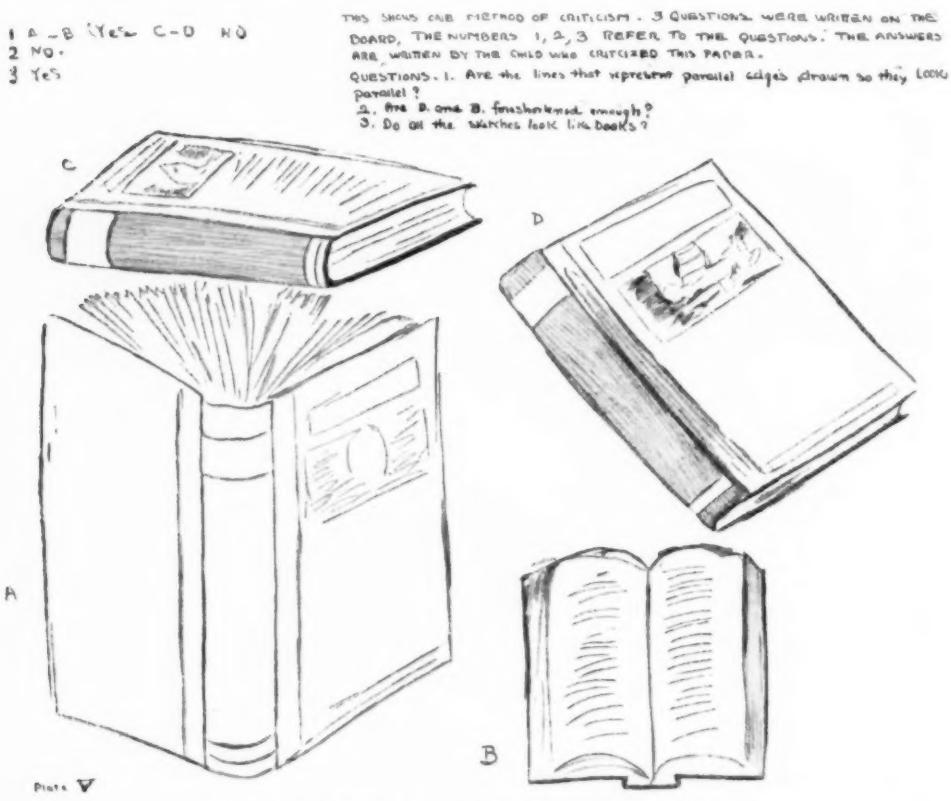

1 A-B Yes C-D NO
2 NO.
3 Yes
THIS SHOWS ONE METHOD OF CRITICISM. 3 QUESTIONS WERE WRITTEN ON THE BOARD, THE NUMBERS 1, 2, 3 REFER TO THE QUESTIONS. THE ANSWERS ARE WRITTEN BY THE CHILD WHO CRITICISED THIS PAPER.
QUESTIONS. 1. Are the lines that represent parallel edges drawn so they look parallel?
2. Are B and B. foreshortened enough?
3. Do all the watches look like books?
C
D
A
B
Plate V

Plate V. A result sheet by one child with criticism by another.

but not "for keeps," except in the case of a few children. An essential part of nearly every lesson was the ten or fifteen minute blackboard work, sometimes from objects, sometimes from key lines, given by one of the children. Moreover, if a real and intelligent criticism, in which all the class participate, is conducted it takes time. If the teacher merely uses the criticism to still further train her own judgment time can be saved for her, though it is wasted for the children, since they are no farther on the road to independent thinking which leads to real power.

To still further assist them to do independent work we had this arrangement: whenever any one wanted to draw it. This call for outside models met with a most enthusiastic response and we had difficulty in storing the cameras, tennis rackets and similar things that came in, not to mention the "models we made in the manual training class." Boys sketched their watches and jack-knives while girls sketched their book-bags and hats. The illustrations of this part of the work (see Plate VII), unfortunately show very few of the home things, owing to the fact that the children almost invariably wished to take them home at once. There came also a time when we went outdoors or to other parts of the building to sketch (not as a class). How many of you fellow sketch-

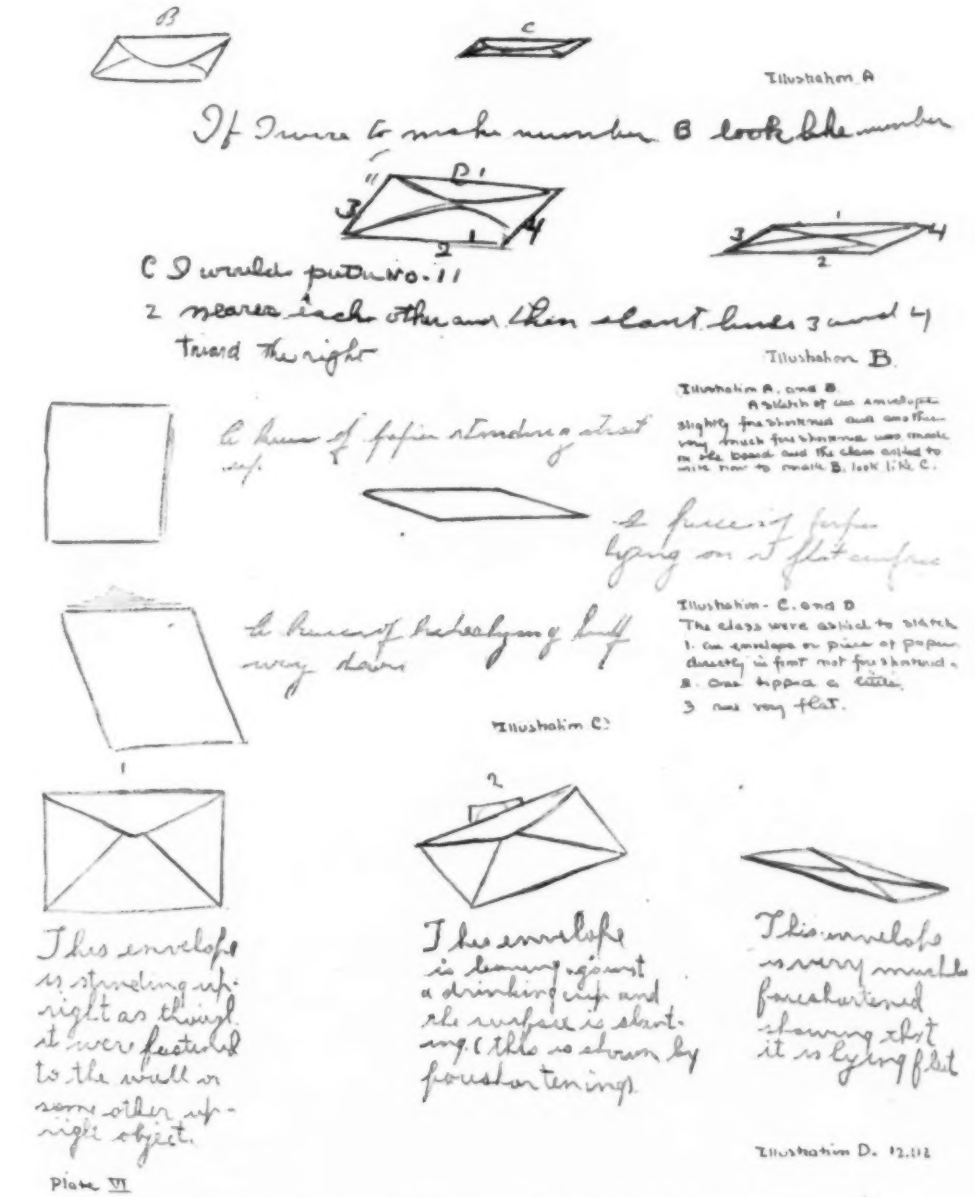

To make B look like C you slant the lines on B a little bit more
B
C
Illustration A
If I were to make number B look like number
D
C I would put No. 11
2 nearer each other and then slant lines 3 and 4 toward the right
Illustration B
Illustration A. and B
A sketch of an envelope slightly foreshortened and another very much foreshortened were made on the board and the class asked to work how to make B look like C.
A piece of paper standing erect up.
A piece of paper lying on a flat surface
A piece of paper slanting half way down
Illustration C
Illustration C. and D
The class were asked to sketch
1. An envelope or piece of paper directly in front not foreshortened.
2. One tipped a little.
3 was very flat.
1
This envelope is standing upright as though it were fastened to the wall or some other upright object.
2
This envelope is leaning against a drinking cup and the surface is slanting. (This is shown by foreshortening)
This envelope is very much foreshortened showing that it is lying flat
Illustration D.
Plate VI

Plate VI. Clippings from drill lessons on making things lie down flat.

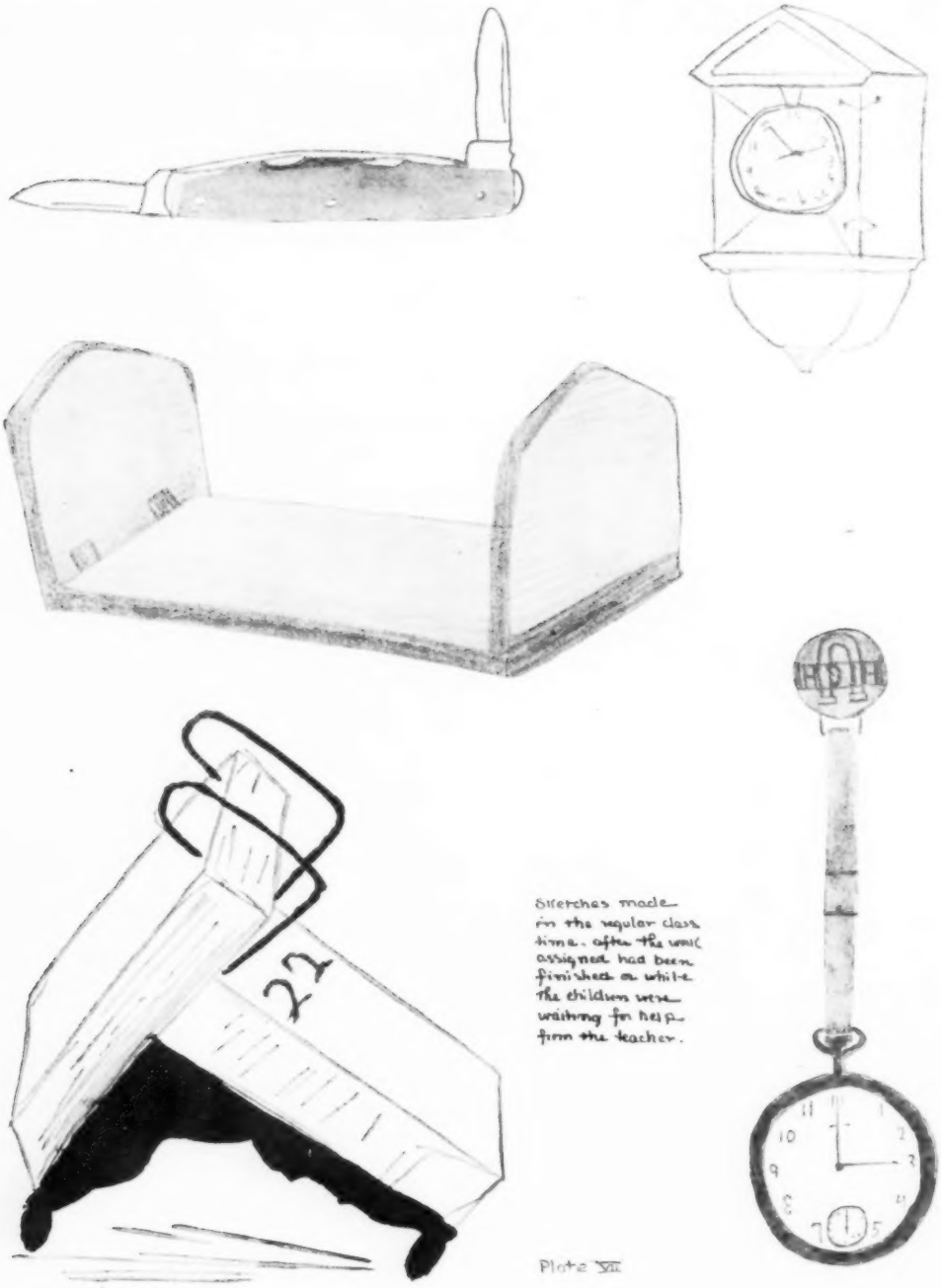

Sketches made in the regular class time. after the work assigned had been finished or while the children were waiting for help from the teacher.
Plate VII

Plate VII. Uninstructed sketches from common objects by grammar grade pupils.

ers would deliberately choose to go sketching with thirty or forty people if earnest work was your aim? Not over six went at a time, and they were chosen from the ranks of those who had shown their ability to work independently in the classroom. Slips of paper with definite assignments written on them were prepared before each lesson and given to those who were to go out. The remainder of the class worked from objects in the room, receiving individual attention and help from the teacher. The drawing period assigned to this class usually came at the last hour in the day, so there was no difficulty about the outsiders keeping the time. When the hour came otherwise someone was sent out to notify them. The assignments given the children were similar to these:

"Go to the main hall, sit opposite the big clock and make a sketch of it."

"Go to the seat on the Midway opposite the main entrance to this building, and from there sketch the nearest lamp-post."

"Go to the seat on the Midway opposite Kimbark Avenue, and from there sketch automobiles or the big willow in the vacant lot."

"Go to the garden, sit opposite the tool-house and sketch it."

"Go to the third floor, to the window just opposite room 397, and from there sketch the gymnasium."

This distributed the children so that there was no temptation to sociability, but so anxious were they to go and so proud of their results that the danger of that appeared slight. Many reports came in from grown people passing in and out of the building, telling of the earnestness with which these children worked. Some of the very conscientious ones informed these passersby that "it was all right, they 'd been chosen to go out and work." The sketches brought in by the children were put on exhibition and discussed by the whole class.

1. "Can you tell what it represents? If so, it is a good illustrative sketch. Let us see if it is also a good drawing."

2. "Are the proportions right, as you remember them? Is it too tall? Is it too wide?"

3. "Are the lines that represent parallel edges drawn so they look parallel?"

4. "What would you do to make this better if you had an opportunity?"

The child who made the drawing always had a chance to speak first if he wished it. Often one of these outside sketchers would say, "I know it is n't right, but I did n't have quite time. I know how to fix it. Please may I do so before the class discusses it?"

If, then, this series of lessons were to answer the questions quoted at the beginning of this article, Object Drawing deals with simple rectangular solids and the common, man-made things about us.

The method used is that of the key-lines, supplemented by sketching from many objects in various positions, and criticized by a knowledge of construction helped out by what our eyes reported as true.

The purpose of teaching is to give children power to think constructively, to see quickly, to judge their own work, to sketch freely, both from memory and the object, and to work independently.

The results, when mounted for exhibition, fell below those obtained from other classes trained to recognize and criticize by rules of perspective, to finish carefully, to make many rapid sketches from objects in varied positions, even those obtained by the key-line method a little differently conducted; but judged by the only fair standard, the power developed in the child, they were better.

The necessity for answering the grade teacher's "Why?" led to the choosing of a "How?" which left power in the child rather than to an exploitation of him on exhibition walls.

On all sides we hear a protest against the graded system, which seems to make all children alike, and a plea to give children every opportunity to express their own idea in their own way. If any part of our subject can be so taught as to help children to help themselves to the tools that will enable them to express their own ideas satisfactorily to themselves and others, to depend upon their own judgment rather than upon ours, is it not worth trying? The teacher who liked rules had a good principle, but she took her rules from the books of adult scientists instead of depending upon her own knowledge of constructive facts, such as are patent to even young children. The boy who discovered that drawing was just mathematics under a new name had joy in his work, because he had discovered his power to think for himself. The child who says, "I know that is n't right, and if you 'll give me time I can make it right," has received from our teaching the best and most we have to give, and we can turn our attention to those who still ask, "Is this right?"

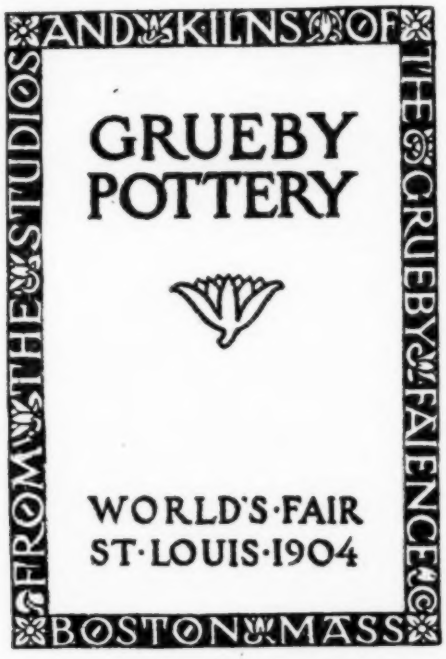
AMY RACHEL WHITTIER,
School of Education, University of Chicago.

High School — Freehand

The making of school posters and announcements and the drawing of headings with satisfactory lettering is a problem constantly confronting the art teacher. My experiences in summer teaching as well as the queries which I constantly hear at conventions of drawing in-

ABCDE
GHJKL
MNQR
STUW
XYZ
23456789
HB

THE MASSING OF LETTERING



To give people pleasure in the things they must perforce use, that is one great office of decoration; to give people pleasure in the things they must perforce make, that is the other use of it.
William Morris.

Plate I. Master arrangements upon which the finished larger designs were built.

structors indicate the very hazy condition of mind of many a teacher upon this phase of our subject. I know of no problem apparently so simple yet beset with such chances of error as the plain lettering of a simple title.

Plate II. High school problems combining magazine pictures and student's letter, under direction of Mr. Brown.

The style of lettering which should first be mastered is that composed of single lines. Plates showing an essential alphabet form in this style are on an adjoining page. Letters missing in these plates may be easily made out of those shown by the addition or elimination of simple elements.

The importance of care as to true verticals and horizontals, comparative proportions and parts cannot be over-emphasized.

The C, G, O and other similar forms should be based on the circle in early exercises. The tendency toward inaccuracy is so strong that a firm counter-influence is needed. If space compels a contraction of the circular form to an oval, well

and good, but the circle should be the first aim.

A beginner will have to try many times, no doubt, in order to get the line of letters to space well, while one of long experience can rapidly sketch, correct the spacing, redraw and perfect the whole line of letters in but two operations. Many boys have watched the plotting of advertisements in chalk on our large fences and billboards by sign painters, and the development of these big jobs of lettering from a first faint layout, through successive stages, to final completion. Reference to such practical examples of everyday achievement on a large scale arouses the juvenile interest in allied problems of the school-room.

Beginners are constantly trying to plot a line of lettering by dividing the line into as many equal blocks as there are letters and allotting a letter to a block. Letters, however, vary much in width, and such a method reveals a sad result when the block divisions are erased and the letters stand alone in all their unevenness.

All experimental spacing should be done very lightly with pencil. The *end letters* of the line should be accurately placed first. If the line is a long one, the middle letter may be lightly sketched. Other letters must then be experimentally located. The first trials will fall short or exceed the proper space limits and require new trials in expansion and contraction until the feeling of good spacing is obtained. With a line of letters carefully spaced and well drawn in light pencil the method of finish is optional. Single stroke letters should be the form for any first layout. Any degree of elaboration may be applied to them later. This method is applicable to all conditions, and the student who pleads that a word is too long for a given space should be given two words instead of one for the same space.

In the larger problem of combining one or more lines of lettering with decorations and illustrations the first consideration is the planning and spacing of printed matter and open parts. This is a most important part of the design. Reference to the small diagrams in Plate I shows the mass arrangements upon which the finished larger designs were built. Every design, simple or elaborate, must be developed in like manner.

The making of pictorial matter for the posters and advertisements is, except in its most simple phases, an extremely difficult thing for even advanced high school students. Such pictorial matter can, with perfect propriety, be supplied by carefully chosen plates and cuts from our magazines, neatly trimmed and mounted in the chosen place on the poster. The problem centers, then, about the lettering and its composition with the chosen print.

The subject of color is an interesting one to take up here. A colored print, no doubt, would need a tinted mount or colored lettering, both carefully harmonized. The tinting of a mount may be done by the usual method of laying a large water-color wash,[1] or, from the point where such a wash is usually left to dry, the brushing may continue in steady strokes again and again over the wet painted surface, repeating this action both horizontally and then vertically, adding practically no more water or color until the pigment has been worked into the pores of the paper and both paper and brush are becoming dry. A flat bristle brush, such as is used for oil painting, is excellent for such work.

A surface of this character has a texture quite different from that of the wash of a single brush application, and is worth experimenting with. Lettering and ornament done in waterproof india ink (if thoroughly dry) are attractively softened and harmonized with the background, if the method just described is applied over ink and background alike.

The illustrations, Plate II, show high school problems combining magazine pictures and students' lettering — a *Country Life in America* heading, a Pierce-Arrow colored advertisement and a Lozier automobile advertisement shared, with a *Garden Magazine* print and a portrait of Princess Louise, in the making of the five most successful designs of one class.

HAROLD HAVEN BROWN,
College of Education, University of Chicago.
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High School — Mechanical

STAIR CONSTRUCTION. The subject of stair building is too complex for full discussion here. Although one of the most important subjects connected with building, it is least understood by draughtsmen and builders. In a few small dwellings and nearly all large buildings the stair work is placed in the hands of a stair builder.

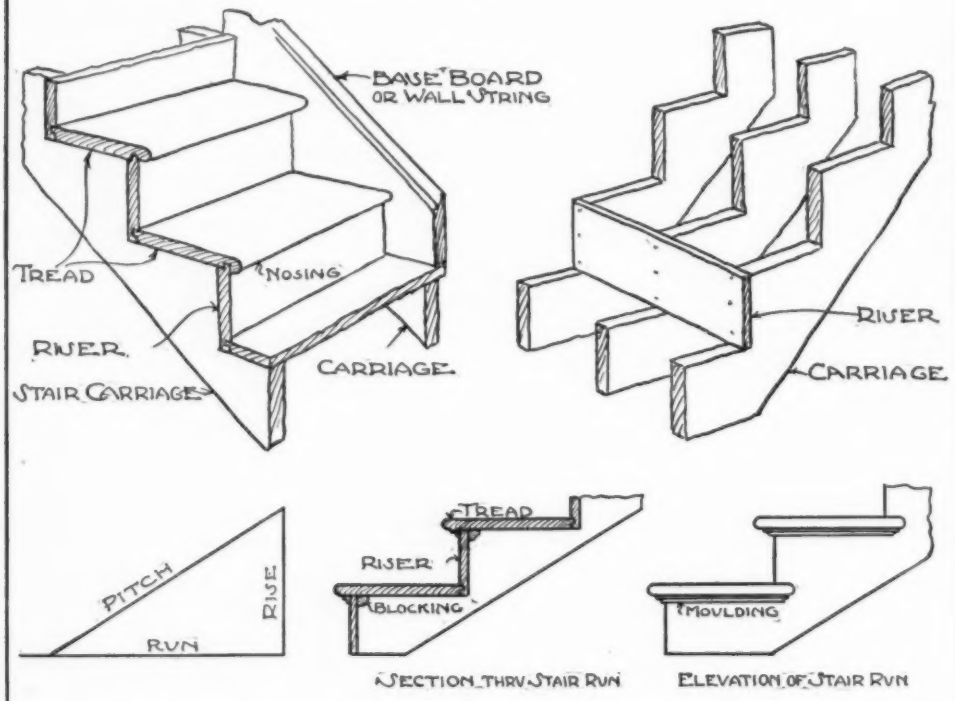
The stairs are an important feature of a house, as they are usually the first object to meet the eye and claim attention. Therefore it is extremely important that both designer and builder shall see that staircases are properly laid out.

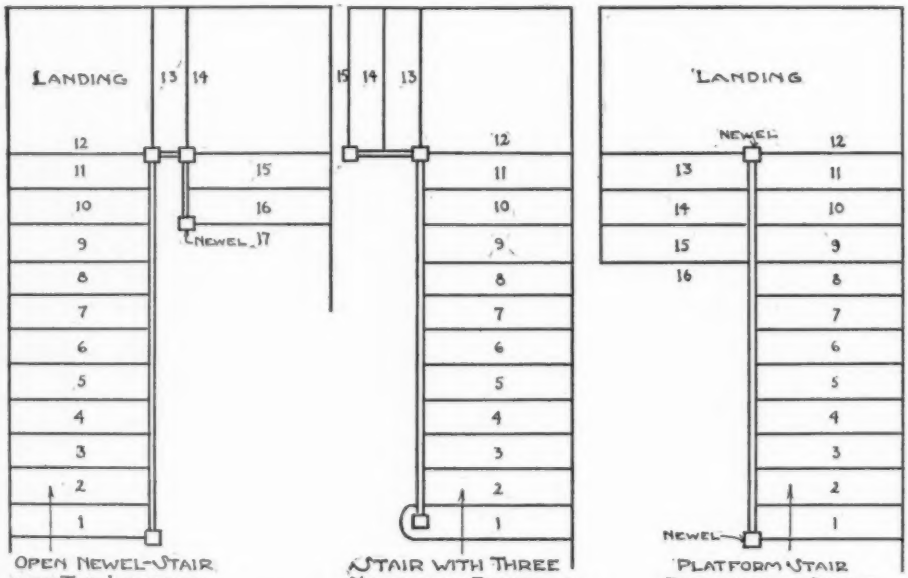
Dimensions, details, finish and construction vary greatly, the following data being the usual. When the hall is of sufficient width, the stairway should not be less than four feet wide. This

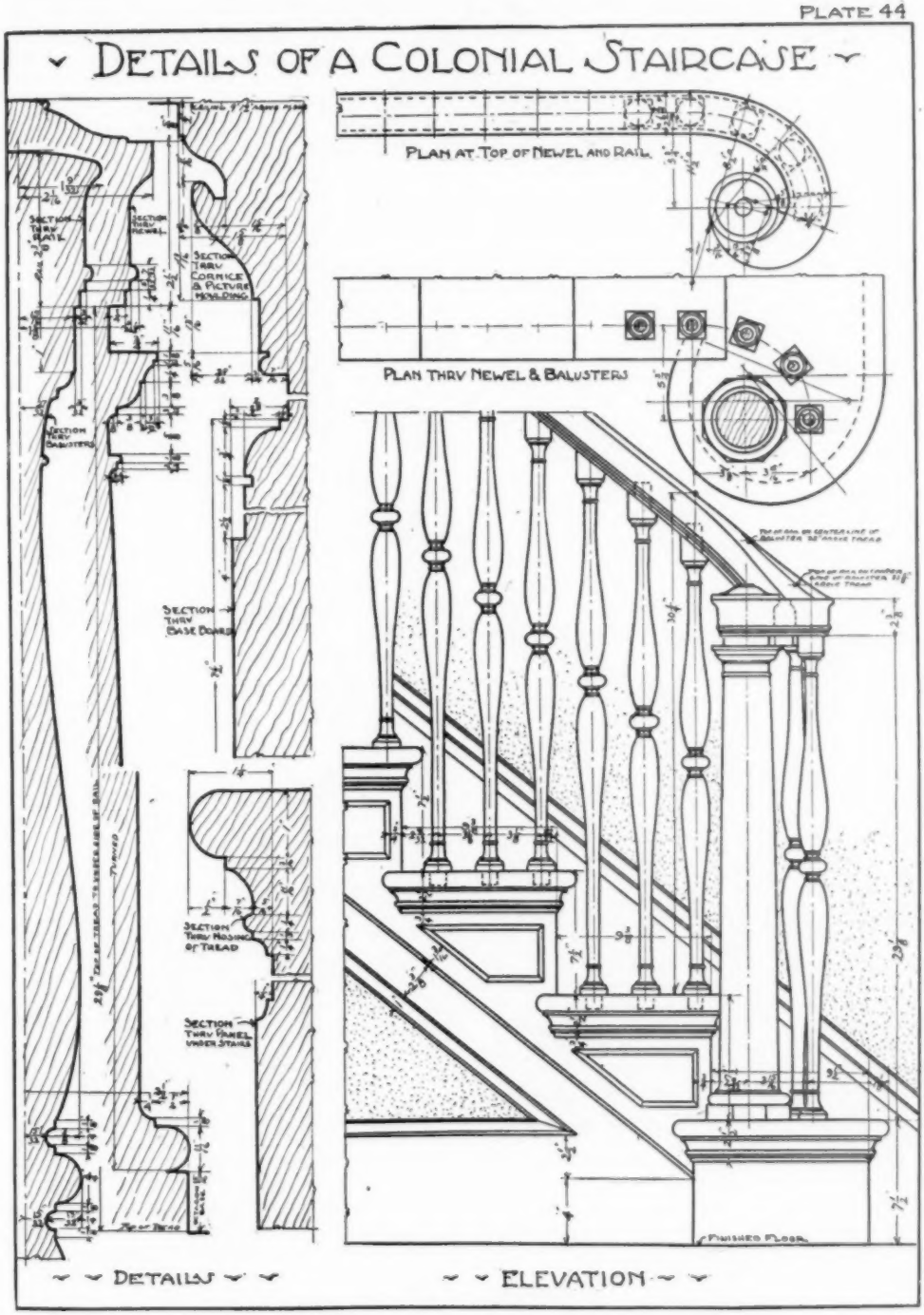
[1] See Mr. Egger's directions in recent number of the SCHOOL ARTS MAGAZINE.

PLATE 43

STAIR CONSTRUCTION






DETAILS OF A COLONIAL STAIRCASE
PLAN AT TOP OF NEWEL AND RAIL
PLAN THRU NEWEL & BALUSTERS
SECTION THRU CORNICE & PICTURE MOULDING
SECTION THRU BALUSTER
SECTION THRU BASE BOARD
SECTION THRU MOULDING OF TREAD
SECTION THRU PANEL UNDER STAIRS
DETAILS
ELEVATION

From a drawing upon the smooth side of tracing cloth. Tools must be in good condition to do such work as this.

width is reduced to two feet eight inches, as in the case of back stairs. The height of riser and width of tread are governed by the staircase, which is the space allowed for the stairway; but generally, the tread should not be less than nine inches wide, and the riser should not be over eight inches high.

A seven-inch riser and eleven-inch tread will make an easy stepping staircase. The tread and riser together should not be over eighteen inches.

The terms rise, run, and pitch are indicated in Plate XLIII.

The tread is the horizontal, upper surface of the step, upon which the foot is placed.

The riser is the vertical height of the step. Its duty is to connect the treads together, and to give the stairs strength and stability.

The terms rise and run are used to indicate the horizontal and vertical dimensions of the stairway, the rise meaning the height from the top of one floor to the one above; the run meaning the horizontal distance from the face of the first riser to the face of the last or top riser.

To lay out a staircase consult Plate VIII in the December, 1911, number of this magazine.

Plate XLIII gives three common types of stairways. Draw the elevations of these plans.

Plate XLIV shows plans, elevation, and details of a colonial staircase. Draw plans and elevation 3 inches to the foot and the details full size.

HARRY LE ROY JONES,
High School, Somerville, Mass.

Shop and Home

THE HAND LOOM AND SOME OF ITS USES.[1]

THE COVERLET AND LINEN WEAVES

The much prized blue and white coverlets are now produced only in parts of Canada and the South. In New England the process of construction is almost a lost art, and fortunately no cheap imitations are produced by machinery. A pattern of indigo blue wool on a background of white cotton is the most common formation. The plain cloth background and wool pattern were woven at the same time by two shuttles. The very elaborate patterns, containing trees, birds, houses, etc., were probably woven of homespun yarn by men who made a business of weaving.

Plate I shows both faces of a small but typical coverlet pattern, and Plate II is the same pattern worked out on squared paper, and from a study of these we will develop the general principles essential to this form of weaving. In working out a pattern on squared paper, the spaces between the vertical lines each represent a thread or "end" of the warp, just as these threads would appear when one looks down upon them in the loom, and the four spaces between the horizontal lines near the top of the page, marked 1, 2, 3, 4, "harness numbers," represent the four harnesses of the loom. A mark at the intersection of a warp thread and one of the harnesses indicates that the warp thread is drawn through the eye of a heddle of that harness and could be raised or lowered only by that harness. It will be noticed that these marks are in groups, alternating between two of the harnesses having odd and even numbers; that these groups are enclosed with a free-hand line; that there are but four kinds of groups, i. e., those formed by alternating the marks between harnesses 3–4, 2–3, 1–2 and 1–4, producing in weaving the four blocks marked A, B, C, D, and that the alternation between the odd and even numbers runs through the whole pattern.

Beginning at the right side of the "drawing-in-draft," at the top of Plate II, it will be seen that the first warp end is in harness No. 2, the second in No. 3, the third in No. 2 and the fourth in No. 3. As the treadles and harnesses are always used in pairs, this group of four ends is enclosed to show that all the ends in the group would move together when treadles 2 and 3 were pressed down. (Harness No. 1 is moved by the right treadle and so on in order from back to front and right to left.) The next group is in harnesses 3–4, the last 3 of the first group being common to both. The third group is in 2–3 again, the fourth in 1–2 and the fifth in 1–4, and so on through the pattern. As the warp ends alternate between the harnesses having odd and even numbers, lowering harnesses 1–3 and 2–4 alternately, and throwing the shuttle through each time in the space or "shed" formed in front of the reed, we can produce a plain weave the same as in the two harness weaving. This method of writing a "drawing-in-draft" is chosen in preference to any other of the five or six methods in use, because it brings out more clearly the characteristic features of this kind of weaving.

A careful study of Plate I or an old coverlet, if you have one, will show that the pattern is produced by strands of the wool filling or woof passing over one or more of the warp threads, while the cotton woof, used alternately with the wool, forms a plain weave with the warp, binding the whole fabric together. Plate II does not show

[1] This completes the series of three articles by Mr. Lane. The first appeared in the School Arts Book, June, 1912, the second in the SCHOOL ARTS MAGAZINE, November, 1912. — EDITOR.

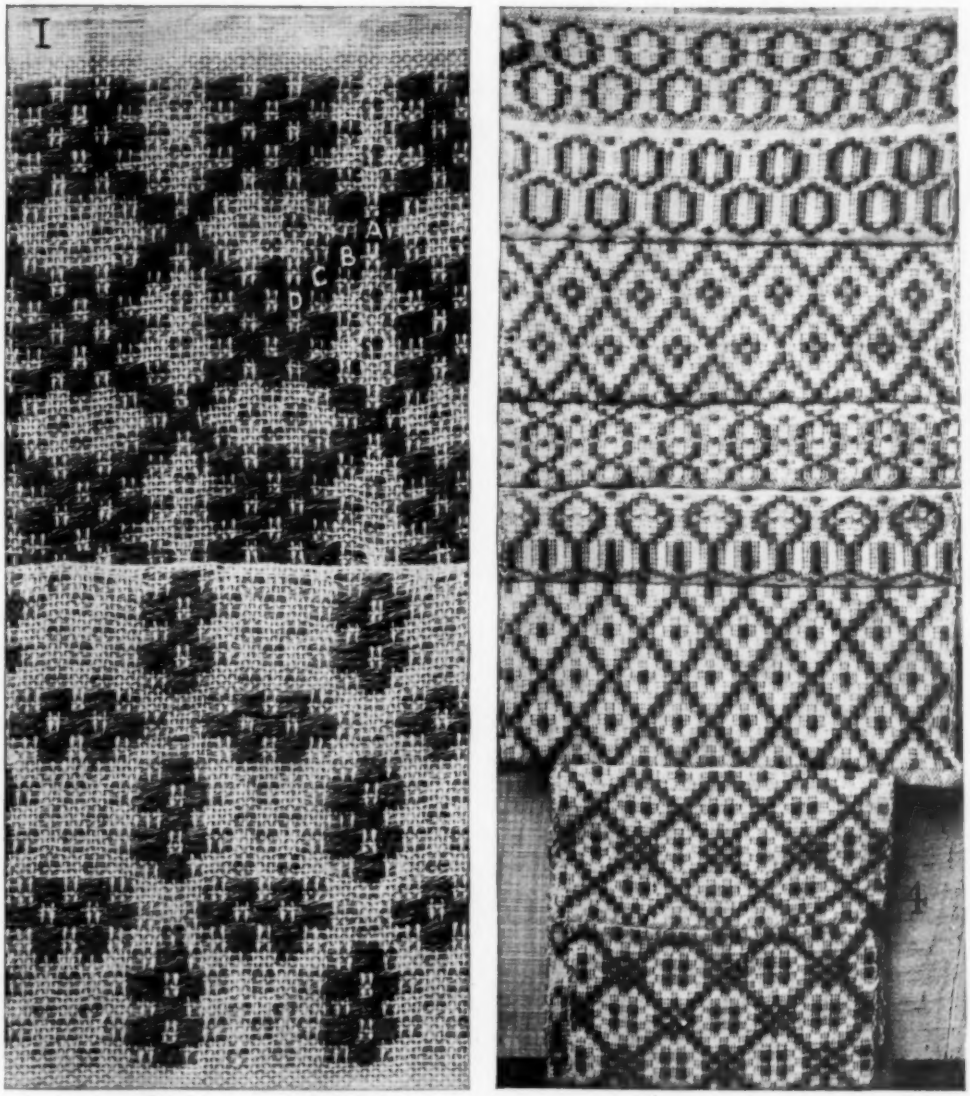


Plate I. 1. Both faces of a small but typical coverlet pattern. 4. Various twills used for table linen and towels.

the cotton woof except that the two lines marked "plain weave" show the way it interlaces with the warp. The horizontal dark marks represent the filling or woof above the warp — the wool woof is shown as heavy lines forming the blocks of the pattern which are so close together, in weaving, that a solid block is formed.

To weave the pattern indicated in the upper part of Plate II, weave an inch or more of the plain cloth, by using harnesses 1–3 and 2–4 alternately, lower 2–3 (see lower edge of pattern), pass the shuttle carrying the wool through from the right, beat up, lower 1–3 and pass the cotton from the right through the space or "shed" so formed. Beat up, use 2–3 again, passing the wool from the left, beat up, pass the cotton from the left in shed 2–4, use the wool in shed 2–3 again and the cotton from the right, in 1–3. This will

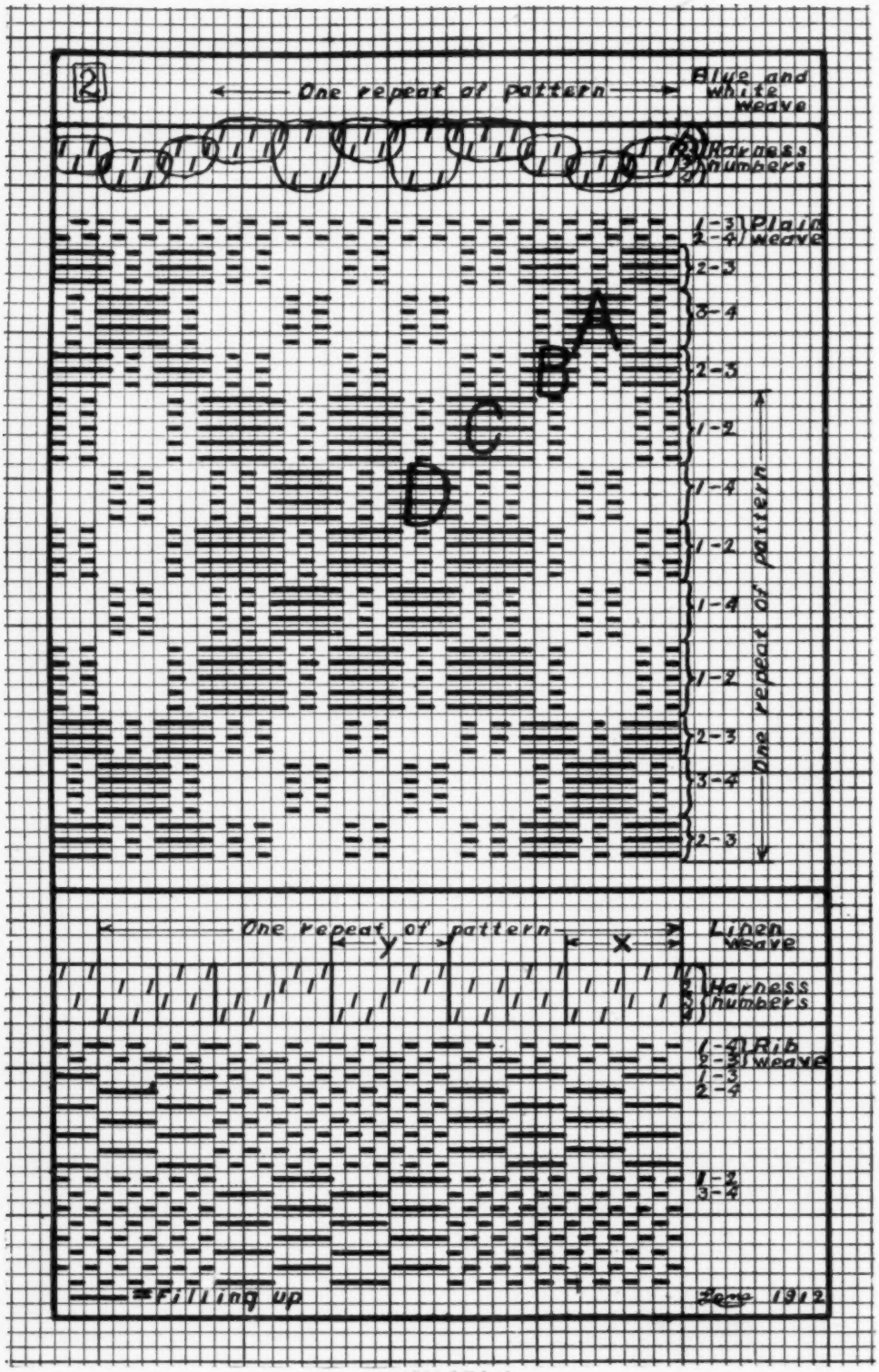


Plate II. The coverlet pattern in Plate I worked on squared paper and one of the twills (4) worked on squared paper.

form the lower row of blocks. The next row of blocks is formed by using the wool in the shed formed by lowering 3–4 four times, with the cotton alternating in sheds 2–4 and 1–3 as before. The third row of blocks is formed as indicated in the right margin by 2–3 three times. It will be noticed that the pair of harnesses used correspond — reading from the bottom up in the right margin — with the groups in the "drawing-in-draft," reading from right to left, and that the blocks correspond in size with the groups; therefore the pattern may be woven from the "drawing-in-draft."

The blocks in the same horizontal lines with the blocks marked A, B, C, D were made at the same time as these blocks, and by following up and down from the blocks in these four horizontal lines every block in the pattern is covered. This is true of all these patterns — they are tunes played on a scale of four notes. The blocks may be made longer or shorter by adding or subtracting two or a multiple of two warp ends, and the order may be changed. If the block B was reduced to two warp ends and blocks A and C woven in succession, two blocks A and C would come together without a common warp end. The small block B would probably appear above or below in the pattern, however.

The quadrilateral symmetry in design is characteristic of the coverlets. The discrepancy in size of balanced blocks, as B and its mate in Plate I, is often found. In this case there was no reason for it and the blocks have been made equal in Plate II. A difference of one end is sometimes necessary. It will be noticed that the surface is composed of blocks of three textures — those in which the wool covers the whole surface, those in which it is over single warp threads and those in which the wool forms a block on the reverse side, leaving the cotton warp and filling exposed.

A great variety of materials were used by different weavers, some coverlets being all wool, some wool and linen. The most common construction, however, was a cotton warp about equal to No. 12–2 ply cotton, a cotton woof or filling of about No. 20–2 ply cotton and a hand-spun wool much like our present "Spanish knitting yarn."

The pillow-cover design shown in Plate III was derived from a pattern known as "Spring Flowers." Three of the four "notes" were used to make the all-over diamond pattern and shortened to make the "chains" in the stripes, while the fourth note made the nine little squares at the junction of the borders and, of course, determined the width of the light stripes.

The right half of Plate I (4) shows a variety of designs which may be produced from some simple patterns. The warp was set up for the diamond with the dot in the center, — the third stripe from the bottom; all above that were woven on the same warp by varying the order of the four possible blocks and by changing the amount of each woven. The two patterns at the bottom were made by rewarping, repeating the last two blocks at the junction points, as C and D are repeated in Plate II both in drawing in the warp and in weaving.

The lower border in Plate IV (5) is like the body of the pillow-cover in Plate III, but all four blocks are used, two being long and two short. The upper border and the bags were derived from a pattern taken from a Canadian couch cover.

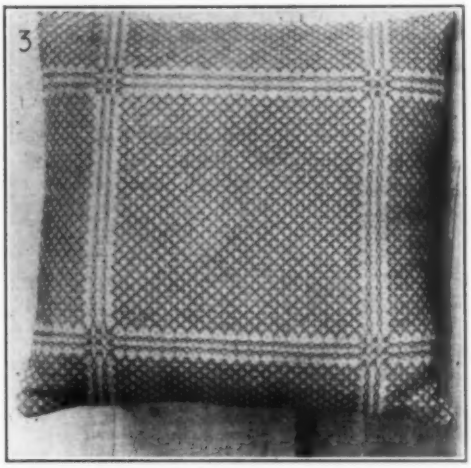


Plate III. A design for a pillow derived from the old "spring flower" pattern.

To pick out a pattern from the woven coverlet, assume that one of the blocks is formed by any one of the four pairs of harnesses, count the number of warp threads under it and write down the block in the proper spaces of the "drawing-in-draft," let us say on 3–4, and enclose the block with a freehand line; count the number of warp threads under the next block to the left — it may be necessary to trace up or down the surface of the pattern to find the block which comes next in order — and write in the proper group. If the first block is 3–4 the next will be either 2–3 or 1–4, according as the 3–4 block ended with 3 or 4. It does not matter which it is, as long as there is a common warp thread that will work with both and the regular alternation between odd and even harnesses is preserved. The first block assigned to a pair of harnesses should be marked by pinning a piece of paper on the goods, with the harness number marked upon it, opposite the

block. All blocks falling in the same horizontal line with this key block will be placed in groups, on the same harnesses. As the blocks are taken up, one at a time, working from right to left, it will be found that the harnesses on which to write each group may be determined by tracing back to one of the four key blocks. The pattern may be proved by working out the face of the pattern below the "drawing-in-draft," as in Plate II.

The "Monk's Belt" and "Path of Roses," two very small Swedish patterns, which are usually used for stripes, belong to the same class as the coverlets.

The Linen Weave

The coverlet weave and various twills were used for table linen and towels; but the method illustrated at 4, Plate I, and the lower part of Plate II, while found sometimes in cotton, as in the largest pattern of Plate IV, which is part of a white bedspread, was used more often for linen, and has been found to give very pleasing effects for curtains.

The "scale" here consists of but two "notes" — two blocks — in one of which the filling from the one shuttle goes under four and over four warp threads, and in the other block over one and under one, forming a small piece of plain cloth, the process being reversed in the next two blocks, in weaving. The warp is drawn into the four harnesses as shown in the draft at the bottom of Plate II. The groups of eight warp threads marked X and Y are the two "notes" of which the pattern is made. In the largest pattern

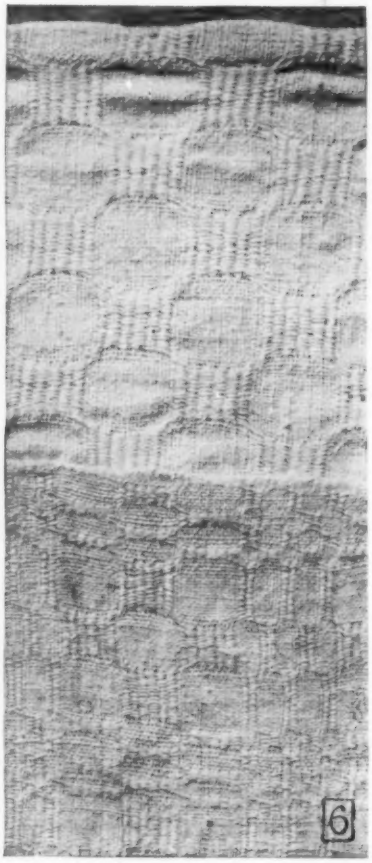


Plate IV. 5. Several new applications of old patterns. 6. One of the twills usually found in table linen worked in cotton for a bedspread.

of Plate IV, each was used three times in succession, forming blocks of twenty-four warp threads, and about the same number of filling threads were used in weaving each block. The harness or treadle numbers used are indicated in the right margin. The finer pattern (6) would be warped as follows: 3X, 3Y, 3X, 1Y, 1X, 1Y, 1X, 1Y, and the same proportions for each block were preserved in weaving, forming a quadrilaterally symmetrical design.

The lines marked "rib weave" are the nearest approach to the plain weave, which can be produced with this warping. The effect is the same as would be produced by doubling every third warp thread in the harness, in setting up a loom for plain cloth on two harnesses. We have never seen it used in old linen, but it may be used for the body of a curtain and the pattern for stripes. The pattern given in Plate II would produce blocks of 3X alternating with blocks of 2Y.

FRANK P. LANE,
Hill Institute, Northampton, Mass.

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PICTURE FRAMING AND HANGING

II

WITH the figured wall paper, gaudy carpets, festooned curtains, and fussy upholstered furniture have gone the ornate frames with diagonal crosspieces at the corner, whips and horseshoes, dog's heads, and mariner's compass decorating a portion of the frame and presumably giving the keynote to the picture. A few of these may still exist, but there is a more and more thoughtful consideration of the harmony of frame and picture.

There are at least two points of view from which the frame may be considered. It is either a part of a decorative scheme which the framed picture will make when hung, or it is a strong enclosing form which will separate the picture from other interesting objects about it. This gives us another problem and must be considered not only in relation to the picture and mat, if any, but also to the background upon which it is hung.

The frame proper is merely a continuation of the mat, and should therefore be unobtrusive. Any frame that detracts from the picture is wrong. As a rule, its color should be the same as that of the mat, but may be deeper in tone.

A consistently pleasing relation must exist also between the width of the mat and that of the frame. The molding may be wider than the mat, or narrower, usually the latter, for equal widths of dissimilar surfaces are not pleasing.

Gilt frames, if they have any ornament, must be right as to period. Do not use a Florentine frame on a Rembrandt or a Whistler.

For the majority of pictures in tones of brown, used in school and home, use flat moldings, or those with slight curves, which cast little or no shadow upon the picture, finished to show the grain of the wood, toned to the right hue and value to harmonize with the picture, and with a single line of delicate beading to give a ripple of light and dark for accent, and to show that the

Burne-Jones' "Hope." A frame of suitable width for a single figure.

picture is worthy of something more than wood. This beading, if used, should be a very dull instead of a bright gold. A small photograph in tones of brown, which is thoroughly decorative in its feeling, is attractive in a narrow, dull gilt frame of rich pattern. The gilt should tone very decidedly toward the sepia.

The width of a frame is governed by three things: by the amount of action in the picture, by the number and size of the objects within it, and by the brilliancy of its coloring. The stronger the action in a picture the stronger must be the frame. The "Flight of Night," by Hunt, and the "Archangel Michael," by Guido Reni, require wider frames than a landscape by Corôt or a Millet of corresponding size. Large objects within the picture require a stronger frame than a number of smaller objects — "At the Watering Trough," by Dagnan-Bouveret, needs a wider frame than Millet's "Woman Feeding Chickens," or Murillo's "Holy Family." Single heads in repose require

more frame than three smaller figures. Great contrasts in hue or intensity require a stronger frame than quiet colors or close contrasts.

There are three things which influence the apparent strength of a molding: its width, depth, and number of points. Woodwork appears stronger the more it is cut up into moldings; each separate molding adds strength. A flat molding is suitable for a picture which is flat in its color, as the German and French lithographs, and for photographs strong in feeling, as in pictures of large animals or rugged trees. A molding with depth is appropriate for landscapes showing perspective, the curve and depth of the wood helping to accent the impression of distance. Where there is much action or very great strength shown, a more complicated molding, made up of more than two bands, may be used.

Hobbema's Avenue of Middelharnis. A curved molding used to give an added impression of distance or perspective.

When no mat is used the frame should be governed by the same considerations. Its functions are similar to those of the mat.

It is not absolutely necessary to use gilt frames for oil paintings. The use is traditional, the idea coming from early work when gilt was used in all paintings. It may be used, and sometimes gives a depth or distance which certain oil paintings need. The gilt should be dull or bronzed instead of bright. In its place grained wood with the gilt rubbed in may be used, or a grained wood stained to harmonize in color with the picture. In this case the color of the wood of the frame should be the same as the most neutral tone in the picture. Black frames may also be used for certain oil paintings.

For water colors use dull gilt in a narrow molding or a flat band of grained wood with the gilt rubbed in, and a dull gold mat; or a narrow, cream-colored molding with a wider cream-colored mat. Occasionally a dead black frame and mat enhance the beauty of a water color.

There is a great variation in gilt frames, and care should be exercised in selecting one which will harmonize with the colors of the picture. Gilt may tone to green, to sepia, or to cold gray. That which tones to green or cold gray should be used with pictures that are cold in their coloring, and that toning to sepia with pictures which are warm in color.

For Japanese prints use a dead black mat and frame which is perfectly flat or one which rounds just a little. Certificates and diplomas require flat moldings of black or dark gray, and no mat.

Fortunately engravings and etchings of a certain type are much less in evidence than a few years ago. These had little of art except the way in which they were done. There are engravings, as those by Stevenson, and etchings like those by Whistler, Haig, and Pennell, which are very beautiful and thoroughly decorative, and these have their place on the wall, but engravings which are purely educational and etchings of doubtful composition and copies far removed from the artist's proof would better be left unhung. If worthy of framing, the engraving may have a mat of cream white and a molding of dark gray or black or, in some cases, mahogany; and the etchings a cream-white mat with a molding which is light in tone, either white with a little gilt or a light wood like the maples.

The German and French lithographs, which are so fine for school-room decoration, are best framed with plain moldings of black, or, perhaps better, a very dark brown, which is more apt to harmonize with the wood in the class-room.

A German lithograph by M. Hunben. The German and French lithographs or posters with their strong color effects and simple, flat tones require simple but strong frames.

In all cases it is essential to keep a close har-

mony in tonality between frame, mat, and picture, and to aim for unity of design in the completed object.

For a most pleasing effect the pictures in a room should relate to the background, or the other way about. A plain side wall is vastly preferable to a figured one. The figured paper is a picture in itself, and when we hang pictures upon it we are simply hanging one picture upon another.

The wood for the frame may sometimes be chosen to harmonize with the color scheme of a room, being either dominant or complementary, that is, provided it will also harmonize with the picture, and in such case it is necessary to think of the color of various woods. For example, mahogany and cherry are red violet; antique oak is red orange, very neutral; Flemish oak is blue green; golden oak is yellow orange; bird's-eye maple and maple are yellow neutralized, or yellow orange.

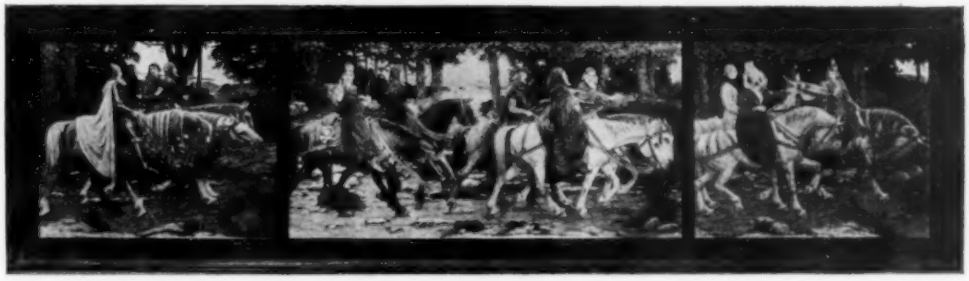
After a picture is well framed its effect may be marred by improper hanging. Pictures should be hung flat, with the screw eyes not far from the upper molding, so that they become a part of the wall upon which they hang instead of standing out at an angle. Unless a picture is hung with screws put directly into the wall, so that no wires show, two picture hooks should be used so that the wires are parallel with the sides of the picture instead of focusing at an angle on the picture molding. Begin by twisting the wire around itself just below one of the picture hooks, carry it down through one of the screw eyes, back of the picture, through the other screw eye, and up to the second hook, and fasten. If the process is started at the screw eye instead of at the hook it is very difficult to adjust the height of the picture and to keep it level, and besides this the wire will pull the picture hooks toward each other.

Pictures should be hung as nearly as possible opposite the level of the eye of a person when standing. In class-rooms this cannot be done. There they should be hung as low as possible, but should never rest upon the upper ledge of the blackboard. About two inches above it is a good distance. In kindergartens, if there are blackboards, it is well to cover them with burlap and hang the pictures upon this background, where they can be more easily seen by the little people.

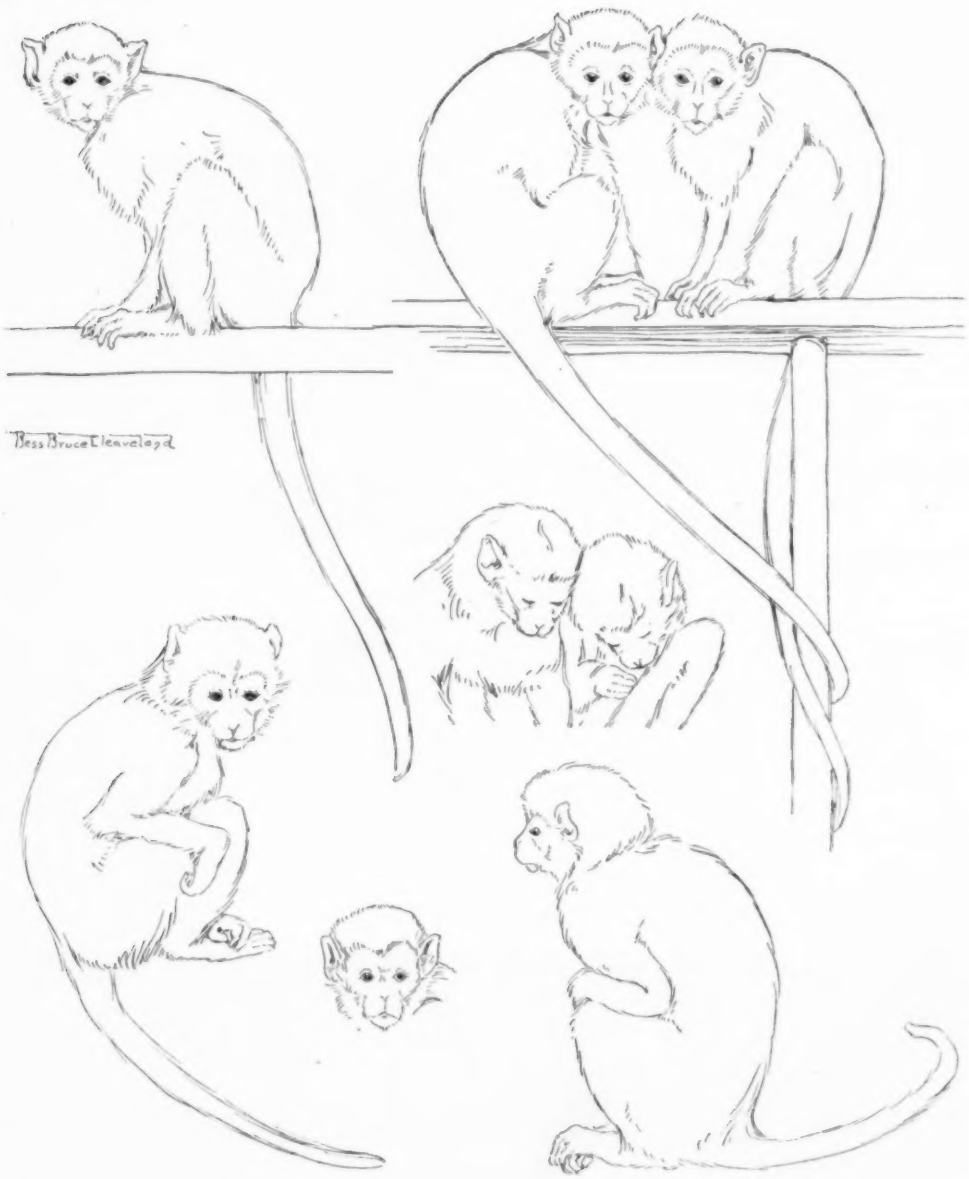
A California Oak, a photograph from nature by Wallace Nutting. A strong, rugged frame is demanded by the rugged, massive tree.

Most pictures are at their best under a side-light, but of course all pictures cannot be hung where they can receive this. The more advantageous light would better be given to those which are filled with detail or have subtle gradations and delicate tones of light and shade, and leave to the less fortunate spaces the pictures having large, simple masses and strong contrasts. A picture with a marked effect of light coming from one side is most effective where the actual illumination corresponds with that represented in the picture.

The size of the wall space should be carefully



"The Canterbury Pilgrimage," by Edwin A. Abbey. A pleasing way of breaking a long panel picture. A narrow frame because of small figures.



SHEET 3. MONKEYS. Monkeys have such wistful, human little faces, and such funny, fascinating, human ways, that they seem neither human nor animal, but a puzzling mixture of both. Perhaps that is why they are so hard to sketch.

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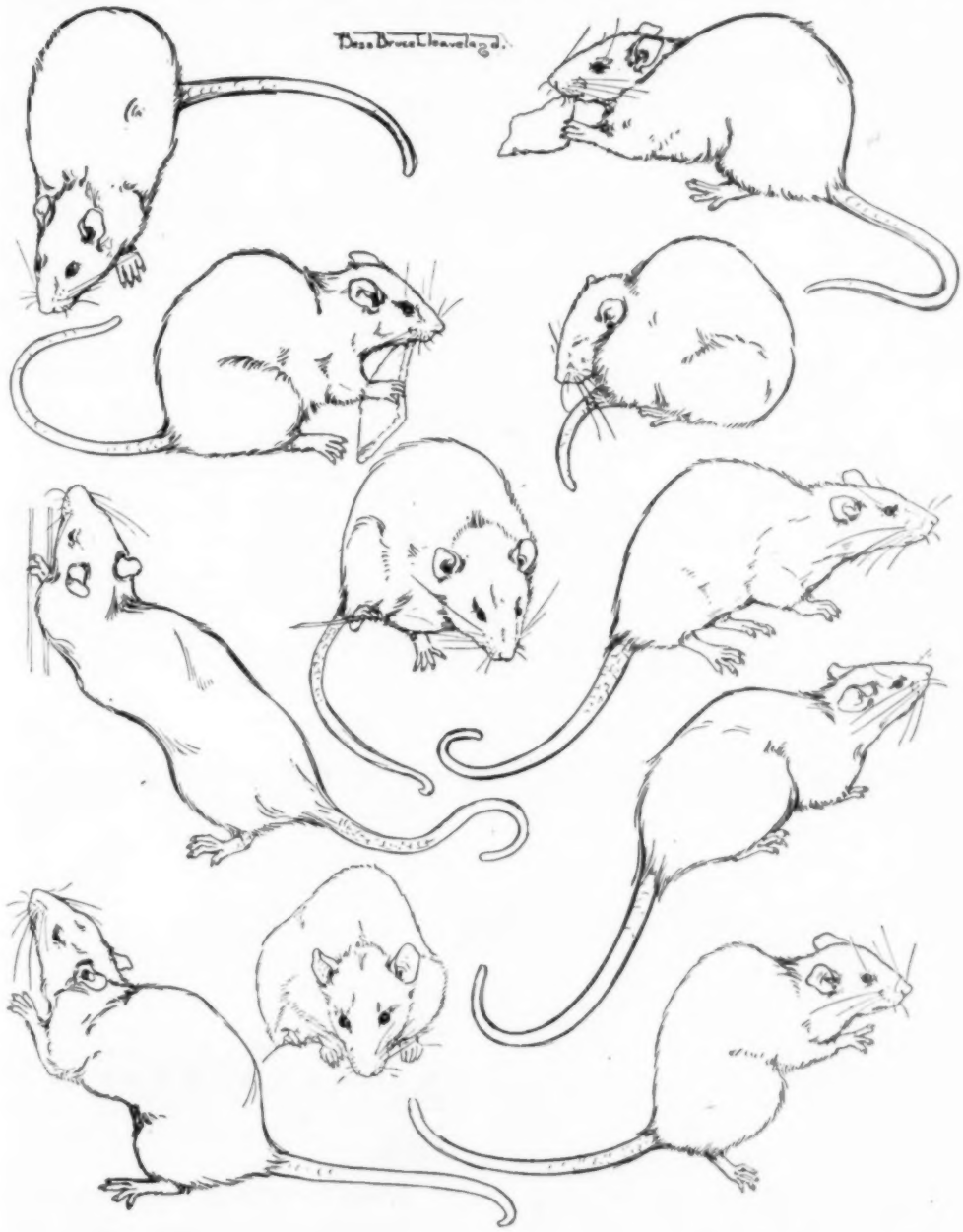

SHEET 4. RATS. Rats have many of the characteristics of squirrels. They use their clever "hands" in the same way. In drawing be careful to make the nose pointed. Ears, feet, and tail are bare, and the whiskers are unusually long.

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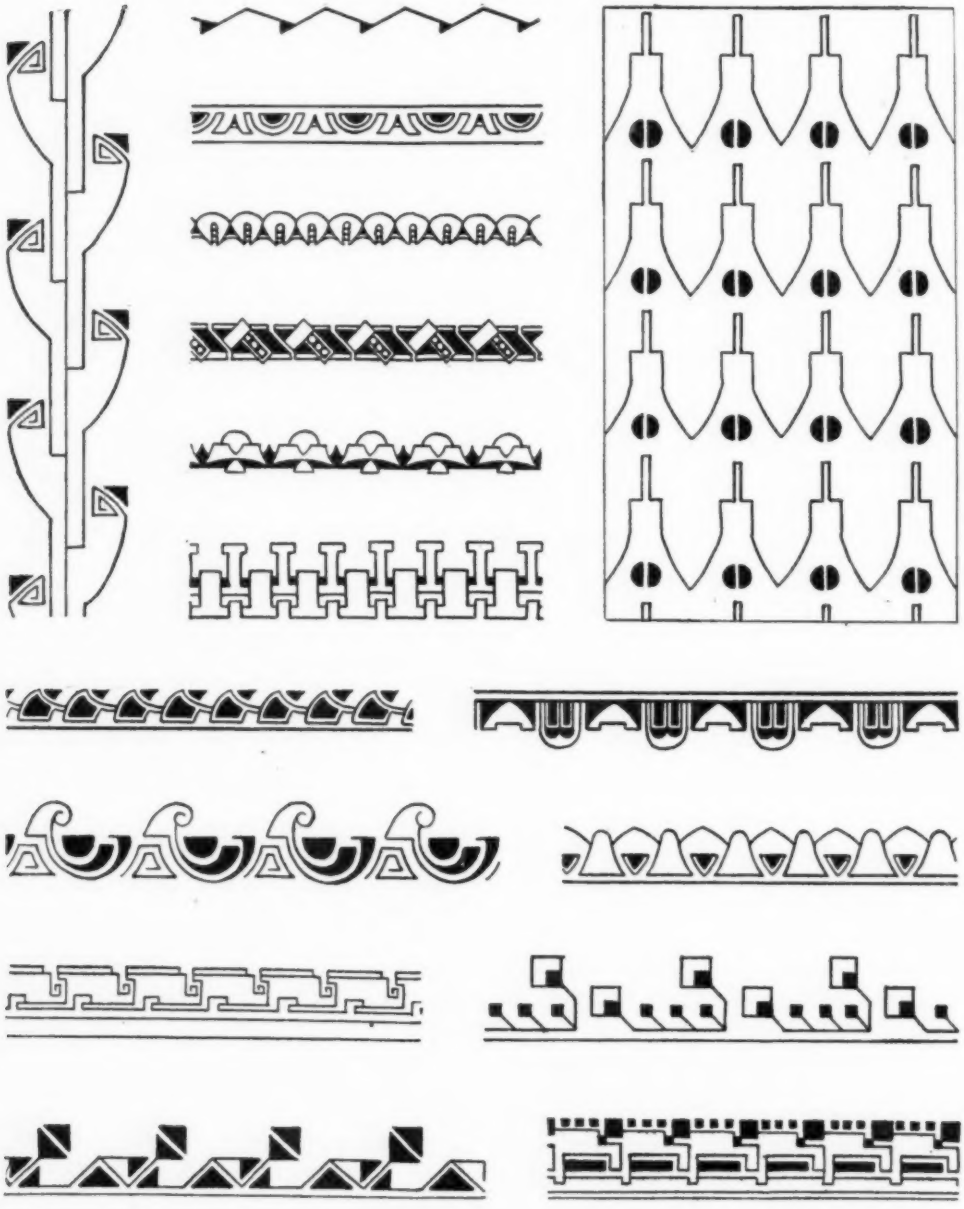

SHEET 1. Borders and a Surface Pattern in line and spot, for printing on various surfaces. By Max Hagendorn

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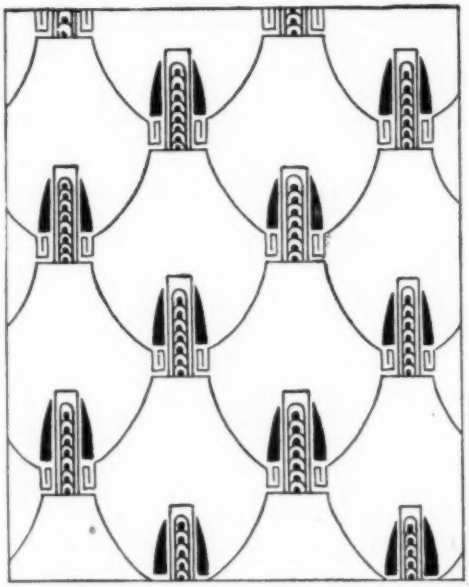

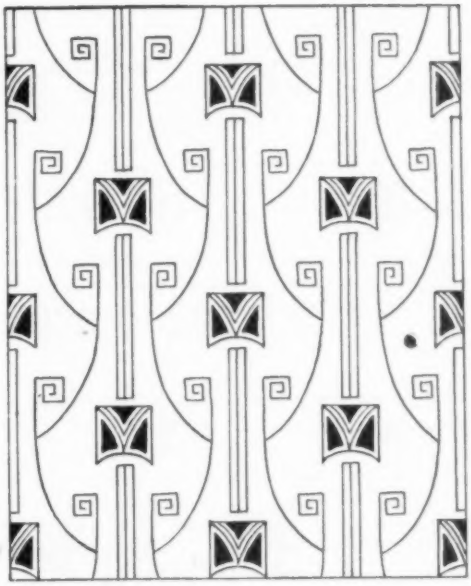

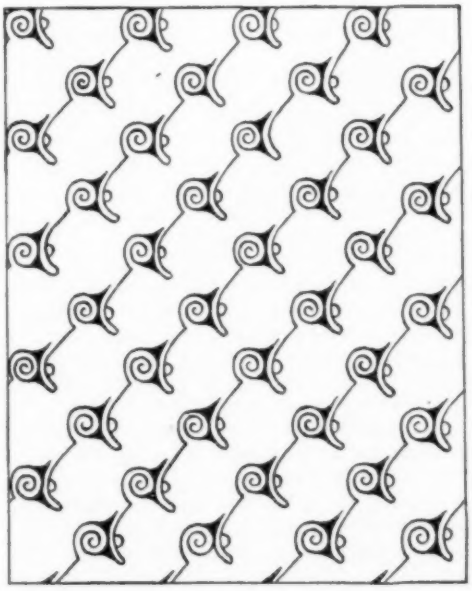

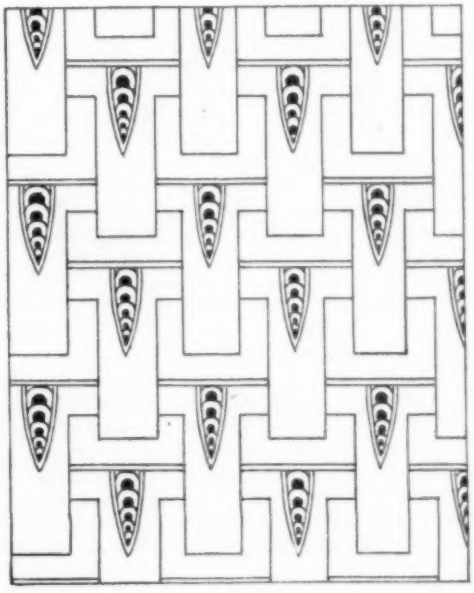

SHEET 2. Surface patterns in line and spot, for end papers and other printed fabrics. By Max Hagendorn

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considered when selecting and hanging a picture. A few pictures large enough to fill their given spaces are infinitely better than a host of small ones often unrelated in subject and frame. Three or four large pictures in a room are much better than a dozen small ones. It is most desirable to have all frames in a room of the same kind, that is, all of gilt or all of oak, although, of course, with a variation as to size and molding.

In hanging pictures singly the picture and the space are the only considerations. Aim to avoid a feeling of being crowded, or, on the other hand, of being lost in space. Apply the same principle as in mounting pictures, placing the horizontal, oblong pictures in the horizontal spaces, and the tall, upright pictures in spaces higher than they are wide.

With a group of pictures a new problem is met. Those unrelated in size or character should be kept apart. If related and hung side by side the Greek division of space, less than a half and more than a third, should be observed, that is, the lower corner of one frame should come between a half and a third the distance from the upper or lower edge of the second frame. In this grouping care should be given not to create a movement which leads the eye out of the room.

Test to see whether the wall decorations of the room are balanced. Consider color balance as well as that of objects.

All pictures are by no means suitable for wall decoration. All illustrative material has its place, but should not be hung on the walls; that which is placed there should be decorative in its character. Portraits of authors and statesmen serve their purpose by helping to teach a valuable lesson at a given time, but it is doubtful if very much patriotism is inculcated by a too lavish display of such pictures as a permanent decoration.

In home decoration, pictures may be selected to harmonize with the furniture, and in all events should harmonize with the character or function of the room in which they are placed.

The decoration of a class-room should be temperate and appropriate. It is a work-shop, and so should be convenient for the tasks that are to be performed; but it is also a living-room, where the children spend many of their most impressionable hours, and so should be arranged both to give pleasure and to inculcate habits of neatness, order, and good taste. Much that is used to decorate the home is out of place in the class-room, but a few well selected and properly hung pictures will do much toward making a happy surrounding and teaching practical principles of art.

All of the foregoing facts and principles may be taught to an upper grammar or high school class in connection with lessons in color, exercises in space division, or simple problems in interior decoration. Let us teach simplicity and restraint, that beauty does not depend upon multiplicity or complexity. Above all, let us aim to apply and make practical the principles we teach in the school and in the home.

MABEL J. CHASE,
Assistant Supervisor of Drawing, Newark, N. J.

Miscellaneous

AIDS TO ILLUSTRATION. The Good Zoo Drawing Cards, by Miss Cleaveland, have proven themselves of such value that the plates for a second series of cards, somewhat larger in size, began to appear in the December number. Two more plates are given this month. The Lion will be needed when the children are illustrating the story of Androcles, or the fable of the Lion and the Mouse, or the fascinating tale of the Wizard of Oz. The Lamb will help in illustrating many a nursery rhyme.

FRESH REFERENCE MATERIAL

WE take pleasure in announcing a new publication — The School Arts Drawing Cards. These cards will furnish in a convenient form for class-room use, examples of fine work in every department of the course of study in art and handicraft. They will present standards of excellence, for comparative study. The first plates appear in the SCHOOL ARTS MAGAZINE this month, pp. 336 and 337. They are a part of Set 5, Decorative Design in Black-and-white. These two plates, and two others in the series, are by Mr. Max Hagendorn, a most original designer, who studied in the Municipal Industrial Art School, Royal Academy of Fine and Industrial Arts, Stuttgart, Germany, and as a pupil of Faller, Kurtz, and others of Stuttgart, and of Fregel of Munich. These designs are now published for the first time. As examples of rhythmic decoration with abstract units, all of the simplest kind, they stand in a class by themselves.

JUST HOW TO DO IT

"I am not looking for any more *ideas;* but I would like to learn how to execute *well* some of those I have." — *A Grade Teacher.*

By George W. Eggers

COLOR SCALES

What We May Expect of Them. How We Can Get It

First Paper

What will a color scale give us?

BEFORE you set out to make a color scale stop and think what you want to get out of it — what you want that scale to do for you. Next think whether you have ever seen or conceived in material form a scale which could do that thing. If you find that you are asking something impossible of the scale, save yourself further disappointment.

A great variety of results has been demanded or expected of scales which thus far they have never yielded. On the other hand a well-made scale is an asset in ways that are sometimes underestimated.

Color Scales Are Expected to Do Various Things

I. *To standardize colors:* so that a color-word such as "blue," "purple, half-intensity," "yellow-orange" will stand for one fixed and unchanging thing wherever the term is used; and also in order that the colors red, blue, yellow, green, orange, violet, will always have a definite relation to each other.

II. *To arrange colors in such a way as to indicate all the possible combinations which will have beauty* for use in creative art.

III. *To organize colors and color qualities in a systematic way so that pigments can be used methodically* and with the expectation of producing: —

(1.) The exact hue value or intensity required (in the case of color-mixing).

(2.) The exact "mood" or pictorial suggestion aimed at (in composition).

Point I discussed. We all live in the same world of color. For all of us the grass is "green"; "blue" is the color of the sky, "red" the color of the apple, etc. But any given color-word lacks definiteness — it carries with it a variety of meanings. "Red" is the color of a cherry, a maiden's cheek, a toper's nose, an Indian's skin, a rose, a brick, an apple as well as that of "ships and shoes and sealing-wax and cabbages and kings!" Thus far scientists, instead of clearing up this matter for us, are complicating it by disagreeing on (a) the color of true red, etc., (b) the number of colors we ought to recognize, and (c) whether the solar spectrum or the paint box should be the basis for a color system. In commerce a yard is a yard, and a pint is a pint, but in the world of color, when we wish to be exactly understood we still "enclose samples."

Point II discussed. Shall we ever have a diagram which will point out all the possible beautiful combinations? Possible combinations vary under varying conditions: if a diagram were to tell the whole truth for one set of conditions it would not for a different set. Would it help us to have a limited number of combinations which were known to be "safe" under all conditions? If a scale were devised which made these combinations for us, color progress would simply stop — the problem of "good" color would be removed from the realm of taste to the realm of mechanics, color-sense would deteriorate, color-interest would flag and the need for "good" color would disappear. Fortunately, try as we will, we can devise no machine which will emancipate us from using our minds.

A good scale however *will* do this: by showing us how large is the field of color, how many the possibilities of hue, value and intensity; it will help us to see in what direction good color may lie — it will chart the color world and make intelligent navigation possible.

Point III discussed. At the present time the real usefulness of color scales is practically summed up in Point III and what it implies. Whether we base our scale upon pigments or upon the solar spectrum, whether we divide the circle into six or five parts, we can arrange the colors that we have in a systematic way so that they will form a working instrument which will be of great help to us in all our subsequent color-

experiences. This will not give us "harmonies" unless we first know what we want. It will not tell us what we ought to want. It will not, in other words, give us anything for nothing. *But* —

a. After we have imagined a color, the color scale will help us to make that color (provided, of course, it lies within the possibilities of our pigments).

b. By having a place for every color conceivable, our color scale will bring back to our notice colors which we have gotten out of the habit of using, thus increasing our field.

c. By bringing all colors into a systematic relation to each other it will become an instrument — a sort of measuring rod — by which to analyze the color (and value) achievements of the masters — by which to learn, if possible, what sort of things they always did with their colors, what sort of things they never did; what they did when they wanted one result; what when they wanted another.

This possibility of studying the masters with color and value-scales will be discussed in more detail and with illustrations in another essay of this series, in connection with the usefulness of color scales in school work.

The More Important Forms of Color Scales

A complete color scale is an arrangement, or diagram (or "map" if you like) in which there is a place for every color (or modification of a color) which exists. Most color scales are not in this sense "complete" scales, but planned to represent portions only of the color-world. On the other hand "complete" color scales are not exhaustive in detail, that is, they do not record every gradation which the human eye recognizes, but only a series of important intervals of color. A globe of the world of course makes no attempt to name *all* the rivers, *all* the cities and *all* the hills, though it leaves us an opportunity to estimate the location of the least important if we are interested.

Making a Color Scale. This is simply the act of arranging colors according to their relations to each other — that is, generally speaking, putting near to each other colors which are more or less alike and separating those which differ. Colors resemble each other or differ in only three ways, namely, in "hue," "value," and "intensity." For a beginning, it is best to recognize only one of these "ways" at a time in making color scales.

Materials for making scales. Ordinarily scales are made by mixing paints for the tones, or by drawing them in in pastels or crayons. But let it be definitely understood that scales can just as readily be made by arranging pieces of colored materials — yarns, silks, ribbons, papers, feathers, shells, leaves, minerals, etc., in proper order. There is even an advantage in making your first scales by arranging pieces of color already "made": the color scale is dependent upon color — not *vice versa*; the importance of the color scale is that it is a measure of color — or an organization of color — it is a man-made affair — colors are quite independent of it. Of course the color scale which you make by laying together pieces of material will not be as perfect as the one you make later when you mix pigments for it. The materials you find will not furnish all the colors needed — there will be gaps in your scale. Still the experience of arranging materials according to their colors will help you to a sense of the relation of color scales to the material world as nothing else will.

The Scale of Hues. In making scales we may begin almost anywhere, but it is natural to begin with the scale of hues. Little children, when they learn to talk, begin to distinguish red, blue, orange, etc., and to call the colors by their names. Most of these common names are names of hues. Each hue that we know varies between two others — that is, red may approach purple (or blue beyond); it may approach orange (or yellow beyond); but there is no such thing as a "greenish" red. Green may be bluish or it may be yellowish — it cannot be yellowish; neither can yellow be purplish or blue be orange. For this reason — in order that all hues which are alike may be brought together — the circle makes a good basis of arrangement. Break the circumference at any point and lay out your hues in a straight band, and you have separated to the extreme ends some pair which should be together.

An arrangement is not in the strict sense a spectrum, and since it represents or embodies no unit of measure, it is not a scale. But it is a natural and inevitable arrangement. When we make a scale from an arrangement in a circle, we do so by selecting a number of points, equidistant from each other around its circumference (perhaps six points, perhaps three, perhaps five — it is immaterial), and expanding the color at each of these points of division into an area or spot. The hues so recognized are named, respectively: Yellow (Y), Orange (O), Red (R), Violet (V), Blue (B), Green (G). The division into six steps, while in a sense arbitrary, seems to the writer a convenient one to begin with. The same scale can be divided into twelve hues, the steps being further subdivisions of the former six and bearing the names: OY,

RO, VR, BV, GB, YG. This scale may be divided into twenty-four parts quite as readily, the naming of the hues proceeding as before, on the basis of the original six. A quarter of

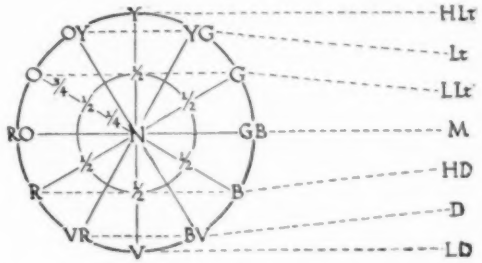


Fig. I. The hues and their values of greatest intensity, showing the relation of the value scale to the hue scale. This figure also suggests the completion of the color circle by the introduction of the Neutral at the center and the intensity scales around it.

the circle will illustrate: Y, YOY, OY, OOY, O. A further subdivision might be named in the same way: Y, YYOY, YOY, OY, etc. With this system, every time you name a hue you also indicate its relation to all other hues and you give a prescription for producing that hue by mixing.

The scale at this point will doubtless suggest certain questions; for instance:

Where does *Brown* occur on the scale? "Brown," let us hasten to answer, is a darker yellow, orange-yellow or orange (according to the kind of brown it is). Similarly, "olive-green" is simply a darker yellow-green. "Pink" is a lighter red or lighter violet-red, as the case may be.

An interesting exercise is to select current color names, such as "Copenhagen blue," "Alice Blue," "Cerise," "Salmon," "Burnt Orange," and to place them as to hue.

Value. We have now seen that each of the hues may occur in different degrees of lightness or darkness — "tints and shades" — or in the language of the craft, "Val es." Any hue may be lightened until it merges into white, or darkened until it loses itself in black without necessarily changing its hue. Blue may be made either lighter or darker and yet remain blue — not becoming any more greenish — not becoming any more violet. "Navy blue" is a dark value of blue; cream is a light value of orange-yellow. A value scale (from black to white) may be made in any color. It is based upon a direct gradation from white to black, and is usually arranged in a vertical column with the lightest value at the top and the darkest at the bottom. The lighter values are often spoken of as "higher values" and the darker as "lower values," and pictures are said to be "keyed high" or "keyed low" in accordance with this terminology.

In dividing the gradation of values which runs from white to black, we may well be influenced by the number of hues we have considered in our scale of hues. There is no reason for being more refined in the one and less so in the other. This point will be touched upon later. As twelve is a convenient number of hues for a scale, seven is a convenient number of values. The human eye distinguishes several times seven, and it is occasionally necessary for the student to develop further some section of his scale. A scale is only a starting place anyway. Dr. Ross's terminology for the value scale is as follows: White — High Light (H Lt), Light (Lt), Low Light (L Lt), Middle (M), High Dark (H D), Dark (D), Low Dark (L D), Black.

Intensity. The question, Where is *Gray* in the scale? brings us to the third property of color — Intensity. Gray is "no-hue": it is the "neutral" commonly indicated on scale-diagrams by "N." It is the opposite of brightness in any hue. *To make an intensity scale:* (1.) Place any hue, in its strongest intensity, at one end of a band or strip: at the other end place a true Neutral of the same value as the hue. (2.) Between these work out a gradation or blending which proceeds regularly from the one to the other. (3.) Break this gradation into equal parts and on this basis record the steps as respective fractions of full intensity. The intensity scale is most often conceived as three steps between full and neutral: Full, ¾, ½, ¼, neutral. A double intensity scale may be made with N as its middle point and two opposite colors (such as R and G) as its extremes. N may be thought of as the center of the color-circle,

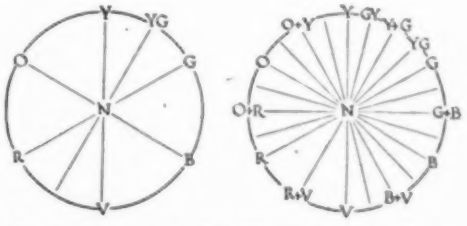


Fig. X. Two ways of subdividing and developing the hue scale.

with the scale of hues at full intensity forming the circumference, the concentric circles between N and the circumference being of the respective intensities ¼, ½ and ¾. (See Fig. I.)

An important fact to be noted in the study of color is that *no hue reaches its full intensity in more than one value.* In the case of yellow, for example, a strong yellow is also a light yellow: but with violet — a strong violet is a dark violet. When the hues are lightened from this "normal" value, or value of greatest intensity, they become pale, and we call them "tint": where they are darkened from their value of greatest intensity they become shaded and we call them "shades."

Dr. Ross (whose nomenclature we have been, for the most part, following) gives a convenient and reasonably true table of greatest intensities as follows: The greatest intensity of Yellow is in High Light Value; of Orange Yellow and of Yellow Green is in Light Value; of Orange and of Green is in Low Light Value; of Red Orange and of Green Blue is in Middle Value; of Red and of Blue is in High Dark Value; of Violet Red and of Blue Violet is in Dark Value; of Violet is in Low Dark Value.

On this basis it will be seen that the six-hue scale would suggest a four-value scale. (See Fig. I.)

Further Words on Painting-in the Scales

Perhaps enough has been said to suggest an order of procedure in painting-in scales. The principle has been indicated that it is best to set your extremes, and then make the subdivisions first the largest, then the small ones and finally the smallest. We may make a scale simply for the sake of preserving a set of color standards, or we may make it for the exercise in color-mixing and color-judgment which the process affords. Any method of accurately copying the standard scale will give us the former result: a method which gives us the latter will give us both. To state the matter, as applied to a value scale, for example, we may point out the following steps as *a good mode of procedure:* (1.) *Begin with your extremes:* in a value scale begin with white and black or with the lightest and darkest notes. (2.) Now mix color for the middle value, taking care that you do not vary from the hue required. Compare the color so produced with the extremes and see how nearly right you can get it without consulting the standard. (3.) Before consulting the standard about your middle value mix your next two — those which divide the intervals above and below middle. If it is a full value scale these will be "Light" and "Dark." Compare these with their respective neighbors and proceed as before. *In criticising your own scale:* — (1.) Paint it in tentatively on a piece of waste material. (2.) Set this up and view from a distance, examining for perfect regularity in the steps. (3.) If no mistakes appear, invert the scale and examine again. (4.) Try placing it horizontally so that values run across from left to right, and then from right to left. (5.) Examine it next from top so that all the values appear in a foreshortened row, and then from the bottom in the same manner. See if in these positions any defects in gradation are discernible. (6.) View the scale in different lights. (7.) If the scale has withstood these varied tests it is probably as nearly correct as your eye can make it. Then bring it close to the standard scale and look at the pair across the room. Study these for quite a time at this distance. You will possibly be surprised at the accuracy of your own scale. (See Fig. II.)

In this statement we have been speaking more particularly of a value scale. We used this illustration for convenience. The method described

Figure II — Steps in the Making of a Value Scale

First	*Second*	*Third*	*Fourth*
Wt	Wt	Wt	Wt
			H Lt
		Lt	Lt
			L Lt
	M	M	M
			HD
		D	D
			LD
Blk	Blk	Blk	Blk

Figure III — Plan for a Scale of Hues and Values

Y (Lt)	O (Lt)	R (Lt)	V (Lt)	
Y (M)	O (M)	R (M)		Etc.
Y (D)	O (D)	R (D)		

Figure IV — Plan for a Scale of Hues and Intensities

Y	$Y^{\frac{3}{1}}$	$Y^{\frac{1}{2}}$	$Y^{\frac{1}{4}}$	N
G	$G^{\frac{3}{4}}$	$G^{\frac{1}{2}}$	$G^{\frac{1}{4}}$	N
B	$B^{\frac{3}{4}}$	$B^{\frac{1}{2}}$	$B^{\frac{1}{4}}$	N
V				
R				

is the method to use in making either a hue-scale or an intensity-scale. With the scale of hues on the circle our "extremes" are three in number instead of two. These may be red, blue, and yellow. They may just as well be green, orange,

and violet, or any other three hues equidistant from each other on the color-circle. Whichever three you begin with, your next step is to produce the hue midway between each two of them; and subsequently the next subdivisions. Figures I and 5 show two ways of naming these scales and suggest the methods by which they may be further developed.

We have thus far shown scales which set forth single qualities or properties of color only. It is possible to combine two, or indeed all three color qualities in a scale upon a flat page (see Figs. 3 and 4) and if a solid is used (such as Mr. Munsell's color sphere) all three qualities can be diagrammed in such a way as to give a very perfect impression of their relations to each other. Dr. Ross, in his book, "A Theory of Pure Design," Houghton Mifflin & Co., New York, 1907, has chapters on "Tone Relations" and "Sequences of Values and Colors" illustrated with a variety of suggestive color-scale arrangements.

It is not the purpose of this essay to restate Dr. Ross's theory of Pure Design, but simply to make clearer to readers of this magazine some of the underlying considerations in the planning and execution of color scales so that the making of scales in the school will not be a process of students merely copying what is set before them. Mr. Munsell's book, "A Color Notation," published some years ago is also suggestive and helpful along the line suggested by the title.

What are Primary Colors?

So far as our problem is concerned, there are no "primary colors" — or rather, any *triad* of colors, that is, any group of three equidistant from each other on the color-circle may be the primaries. Red and yellow do make orange. But likewise do orange and violet make red, and orange and green make blue. Those who are mathematical-minded may be interested in this statement or table of the whole subject: —

$$Y + R = O \qquad O + V = R$$
$$R + B = V \qquad V + G = B$$
$$B + Y = G \qquad G + O = Y$$

The following analysis may make a little clearer the last three equations: —

$$\text{"O} + \text{V} = \text{R"}$$
$$O = R + Y$$
$$V = R + B$$
$$\therefore \quad O + V = R + R + Y + B = R + (R + Y + B)$$
$$R + Y + B = N$$
$$O + V = R + N = \text{Red (half-intensity)}$$

(The mixture of any two hues reduces the intensity of the resulting hue: this is equally true in "Y + R = O" or "R + B = V" or "Y + B = G")

The truth is that any triad of hues will make all hues — but not all intensities and not all values.

Every person who expects to purchase clothing, furnishings or works of beauty of any kind should have some systematic idea of color. Everyone who intends to be a painter or designer should have, early in his education for work, a definite experience with every aspect of the color scale. It will at least be some protection against mannerisms in color: it will certainly save many wasted moments of misdirected experimentation. Suppose that the human eye distinguishes only thirty values between "white" and "black" — so called. Suppose that it distinguishes no more than fifty differentiations of hue and that it distinguishes only ten of intensity. Now, even allowing for the fact that the number of intensity-steps is smaller in the extreme values, we should still be safe in saying that the human eye takes in *five to ten thousand variations of color!* The designer's alphabet is a large one; fortunate is he that he does not have to memorize it — fortunate that a six-hue, six-value, three-intensity scale will go so far toward "keeping him straight" in his use of it. He has but to remember that this simple scale is but his starting-point — his guide (like the mariner's compass which it so strongly resembles), and that the relations of hue value or intensity which he loves and wishes to use may be subdivisions of the cruder intervals of his scale but that the scale keeps him conscious of his location and that its principles go marching on into the most delicate gradations of color that the eye can see, and still beyond.

THE INFORMATION WINDOW

IN an outline for the drawing teachers in the city of New York who attend the conferences, held by Mr. Royal B. Farnum, the State Inspector of Drawing, is the following outline of pictures to be studied in the first eight grades:

Grade 1.

Madonna of the Chair. Raphael.
The Age of Innocence. Reynolds.
Children of the Shell. Murillo.
Feeding Her Birds. Millet.
The First Step. Millet.
Hiawatha. Norris.

Grade 2.

Return to the Farm. Troyon.
The Divine Shepherd. Murillo.
Mother and Child. Toulmouche.
The Drinking Trough. Dupré.
Interior of a Cottage. Israels.
Can't You Talk? Holmes.

Grade 3.

The Balloon. Dupré.
Potato Planting. Millet.
Penelope Boothby. Reynolds.
Little Samuel. Reynolds.
Shepherd and His Flock. Bonheur.
Caritas. Thayer.

Grade 4.

The Escaped Cow. Dupré.
Arrival of the Shepherds. Lerolle.
A Helping Hand. Renouf.
Sistine Madonna. Raphael.
(Madonna and Child — detail).
Pied Piper of Hamelin. Kaulbach.
Little Rose. Whistler.

Grade 5.

The Shepherdess. Lerolle.
End of Day. Adan.
Autumn. Mauve.
Song of the Lark. Breton.
The Gleaners. Millet.
Oath of Knighthood. Abbey.

Grade 6.

Sir Galahad. Watts.
The Sower. Millet.
The Horse Fair. Bonheur.
Puritans Watching for Relief Ships. Boughton.
Reading from Homer. Alma-Tadema.
Fog Warning. Homer.

Grade 7.

Fighting Temeraire. Turner.
Golden Stairs. Burne-Jones.
Water Gate. Van Marcke.
William I of Nassau. Van Dyke.
In the Meadow. Lerolle.
Shaw Memorial. St. Gaudens.

Grade 8.

Water Carrier. Millet.
Temperance. Burne-Jones.
The Mill. Rembrandt.
Madonna of the Shop. Dagnan-Bouveret.
The Haymaker. Adan.
Medfield Meadows. Inness.

Dear Sir:

In reply to an enquiry by Miss A. E. Wentworth from Cincinnati, in your last number, I should like to inform her of some excellent school pictures published by Franz-Hanfstaengl, 16 Pall Mall, East London, England.

Among them is a lithograph of "Columbus Sighting the New World." It is drawn directly on the stone by Frank Brangwyn, R. A., and those who know his work may well imagine the strength and freedom with which this subject is treated. This would be particularly appropriate in American schools, as also would be "The Savannah," the first steamboat to cross the Atlantic. A catalogue from the firm of Hanfstaengl will show a series of strong decorative works which take their place well in the school.

The "A. L." fairy tale pictures, published by E. J. Arnold & Sons, Leeds, England, are excellent, and many of the Bible wall pictures, published by Thomas Nelson & Sons, London, England, are full of good, rich colour, and are perfect examples of figure composition. They are from originals by first-class artists, and being large in size, and big in treatment, have a handsome appearance.

The cheapest publication of paintings I have ever seen was by Cassell & Co., London, England, and was entitled "100 Popular Pictures," in colour. Some difficulty was experienced in obtaining the last set I purchased, and they may be out of print. They are larger and superior to the Perry Pictures, and cost sevenpence per set of four pictures, printed description included. I have also seen a similar set of pictures from the Louvre but have forgotten the name of the publisher; perhaps it was Cassell's firm.

This set of "100 Popular Pictures" and "Pictures from the Louvre" form perhaps an answer to Miss Wentworth's question, are there any prints published on English paintings? The desire to have a complete series will be difficult to satisfy however.

Trusting this list may help some of the readers of your magazine, which is so deserving of success,

I am, yours sincerely,

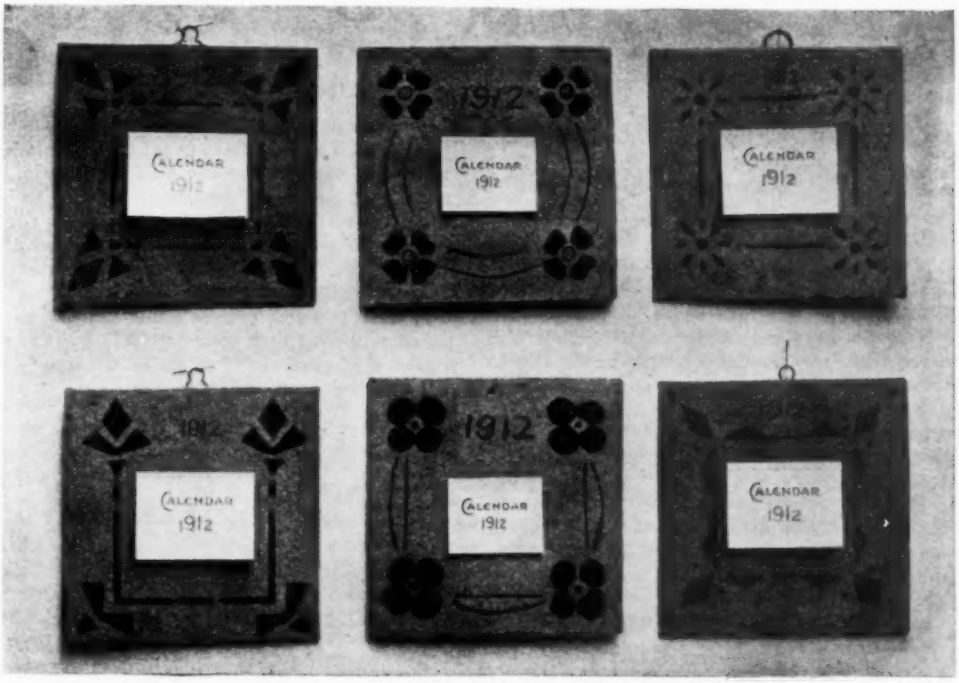
J. KYLE,

Provincial Normal School, Vancouver, B. C.

Dear School Arts Magazine:

For three years I have tried to gather some of our work together to send you but the good people

A view of the forty or fifty hats made by fourth grade pupils under good direction.



A view of the novel calendars designed by eighth grade pupils.

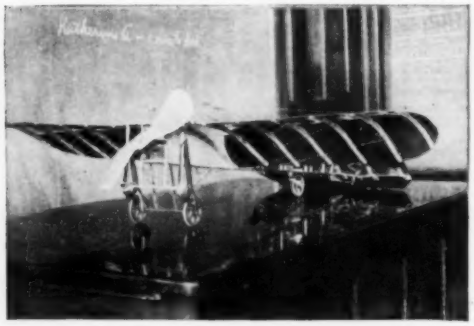
here, young and old, do not like to part with it. At last it has occurred to me that I might send you some photographs, so here they are.

The hats are made by fourth year pupils. The teacher of that room had from forty to fifty hats, all quite as good as this. The square calendars were made by eighth grade pupils from their own designs.

Our Thanksgiving and Christmas drawings pleased me very much. In each grade we made from two to five articles, — brush broom-holders, telephone pads, calendars, work boxes, match-holders, needle books, etc.

Yours sincerely,

A Graduate of P. N. S. I. A.



A working model of a Blériot machine propelled by rubber bands. Made by Frederic Lehmann, a seventh grade boy, Berwyn, Illinois. The photographs show a side view and a top view of the model

My dear Mr. Bailey:

The enclosures will tell their own story — to which I might add a few of the facts, interesting as to the financial arrangement.

Frederic Lehmann made every part of this monoplane, from aluminum wings and elevator to the sewn seams of the aviator's car at a total cost of $1.85. The completed model he sold to a city department store for twenty-five dollars. We feel this to be profitable and pleasureable for young mechanics, the results of careful training in the manual shop.

Thanking you, I remain

Very truly,

HARRISON PAUL BROWN,

Supervisor of Manual Training, Berwyn, Ill.

Dear Bailey:

I have been reading your interpretations of American masterpieces in the SCHOOL ARTS MAGAZINE. Good for you! I was especially struck with your thought as to Thayer's "Caritas." It is quite new and brings in a very striking note of modernity. Keep doing it!

Your sizing up of the Dresden Congress was just, and will tend to make us get up earlier in the morning. Between you and me I am growing to think that our broad democratic view of art in education needs the boost that is likely to come from more and stronger preparatory schooling for teachers. We have n't enough first-class teachers who *want to teach*. The devil fly away with those two-year courses which turn out half-baked pedlers of little formulæ! We want more fellows who can lead. Let me quit this subject or I shall begin to "orate."

Cordially yours,

ELLSWORTH WOODWARD,

Newcomb College, New Orleans, La.

THE LATEST ART-CRAFT BOOKS

ON ART APPRECIATION AND PRACTICE

*ARCHITECTURAL COMPOSITION

By John Beverley Robinson. 234 pp. 6 × 8½. 158 illustrations in line and half-tone. D. Van Nostrand Co. Price $2.50 net.

THE author says in his first chapter that the object of this work is to excite thought, and to register the results of his own observations, "with the view of raising the power to design from its comparatively obscure position as an art to the dignity of a science." While the book was prepared primarily for architects in training and architects in practice, it is so readable and so well illustrated that it is about the best book we have on "How to look at Architecture." Any thoughtful person can read it with profit. The theory behind the book may be stated briefly to be this: Just as there is a science of music "to regulate and illumine" musical composition, so there must be a science of esthetics to regulate and illumine architectural composition, or any other form of composition in the Pure and the Representative Arts (to use Mr. Robinson's terms of classification). Beginning with the "one fundamental quality," Unity, the author proceeds to a discussion of what it implies. "So fundamental is this quality, that scarcely any other is needed for excellence in a work of art. If we can succeed in producing something in which no part seems to be extraneous — 'stuck on,' 'gingerbread' — we may be confident that we have done a fairly good thing." The various elements involved in Unity are grouped under these topics: Intrinsic Shape, Relative Shape, Relative Size, Number, and Proportion. "For any true esthetic judgment of the productions of architecture we must judge them as we do a picture, ignoring considerations of utility in plan and practicability in the material." Throughout the book the author refers to other arts — music, poetry, painting, etc. — as embodying the same fundamental elements of beauty. Architectural Composition ought to be in every supervisor's library and in every school library, between Hogarth's "Line of Beauty" and "The Beautiful Necessity," by Claude Bragdon.

*THE ARTIST'S POINT OF VIEW

By Royal Hill Milleson. 159 pp. 5 × 7½. A. C. McClurg Co. Price $1.00.

An artist's point of view is always well worth having, but often quite impossible to get at. Not so in this case, for here is an artist who, with reference to the use of English, was not "born tied up in a bag." The book is as frank, as unconventional and as refreshing as an unspoiled boy. Here are a few sentences at random: "Take me seriously but not too literally." "The lover's world is a small one, with a population of two." "Moral: if you want humbug, ask for it." "The old masters never saw a photograph, and perhaps that is one of the reasons why they painted so well." "Now, sir, having knocked in the head, drawn, quartered and hung up in the smoke house your beautiful sky, let us proceed to see what there is to attack in the distance." The book is made up of a series of letters from an experienced landscape painter to a beginner in that art, but the letters are good for everybody to read. They are not only saturated with a kindly wit, but packed with wisdom, and full of hope for every sincere effort and for the future of art in our own country. "Unless I am a miserably poor guesser, an era of unexampled development throughout the whole domain of art is approaching in the United States. America in art as in other respects will be abundantly able to take care of herself."

Mr. Milleson's point of view may be pretty accurately located by reckoning from two stakes, one of which he drives in his first letter, the other in his last: "In one who has some native talent, correct drawing and good taste, supplemented by creative instinct and old-fashioned industry, go to make pictures that are tolerably certain to command respect." "If you are a worshipper at a shrine of those consummate expressions of nature and nature's God which are discoverable everywhere, at all seasons, you will be bound to lead the right sort of a life and think the right kind of thoughts, with the result that your pictures, if you paint pictures, your music, if you compose music, your book, if you write books, will reflect something of those great truths. If humanity

* Added to the School Arts Library of approved books.

admires your creations, it is because there is something admirable in your soul. Becoming acquainted with your work, they have the feeling that they know you."

Having read this book one feels that he has made the acquaintance of a genuine man and that he has learned something from a delightful friend.

BY-PATHS IN COLLECTING

By Virginia Robie. 568 pp. 5½ × 8. 64 illustrations. The Century Co. Price $2.56.

Miss Robie is a charming guide to the alluring fields of the collector, — fields full of pitfalls and insidious foes of various kinds. Her book is therefore entertaining even to one who does not collect and does not intend to, but who wants to be fairly intelligent about what he is likely to find as he walks about. The pages contain reliable information about the age, decoration, and value of old china, furniture, upholstery, pewter, copper, brass, samplers, sundials, etc. The plates are full of suggestions for the designer and teacher of design.

*DESIGN AND CONSTRUCTION

By Arthur H. Chamberlain, Nelbert Murphy and Alfred Guillon. 54 pp. 8 × 11. Profusely illustrated. Four plates in color. Whitaker & Ray-Wiggin Co. San Francisco. Price 35 cents.

The authors say in their preface that the influence of Mr. Ernest A. Batchelder may be traced through the book. They are right. That influence is always in the right direction. The book, or rather pamphlet, an awkward size to manage, is full of good things, sure to help in the teaching of design. The influence of material and process in adapting natural units for decorative purposes is not entirely overlooked, but the designs in one material are frequently quite like those in several others. All the designs have a certain distinction, however, a sort of novelty and brilliancy of effect, which will make them a welcome addition to any collection of reference material. The designs in color are all in the same harmony, — three analogous tones, yellow-green, orange-yellow and yellow-orange — with black. The text is descriptive, but not too detailed, "to the end that pupils will be compelled to work out and apply their own problems," in clay, leather, wood, metal, thread and paint. It is an "Advanced Book." Additional books are promised dealing with the more elementary phases of design.

*SIMPLE JEWELRY

By R. L. L. B. Rathbone. 280 pp. 5½ × 8. 94 plates. D. Van Nostrand Co. Price $2.00 net.

Are there better books on Figure Drawing and Composition than Hatton's, on Modeling and Sculpture than Toft's, on Writing and Lettering than Johnston's? These Englishmen know how to make standard textbooks. Here is one on the making of simple jewelry. The treatise opens with "Work Beyond the Beginner," advocates "Craftsmanship First," and then proceeds to unfold the possibilities of grains, rings, discs and domes, scrolls and wire units, twists, braids, and settings for precious stones. The text leads one to feel that the author is at one's side, as a kindly, experienced teacher, with a full knowledge of all difficulties and of how to meet them. By this book-guidance alone a determined person with a simple outfit of tools and materials and a persistent spirit, might become a skilful maker of salable tasteful jewelry.

*PROBLEMS IN FURNITURE MAKING

By Fred D. Crawshaw. 36 pp. 6 × 9 of text and pen-drawn illustrations, and 42 full-paged plates. The Manual Arts Press. Price $1.00.

This volume, a revised and enlarged edition of an earlier publication, contains distributable plates of working drawings for students. It is uniform in general style with the other brass-fastener-bound publications of the Manual Arts Press. The furniture advocated may be described as "Refined Mission," the sort that can be made successfully in manual arts high schools, and by boys of high school age who love to "carpenter" at home. The working drawings are clear, and the sketches of the completed models present them as attractive pieces of furniture.

*THE INDUSTRIAL READER

By Mary B. Grubb and Frances Lilian Taylor. 128 pp. 6 × 7½. Profusely illustrated. D. C. Heath & Co.

Correlation, that much talked about, much ignored, and much abused educational method, is here put into an enticing form. A continued story about Betty and John, their friends, and the fun they have doing and making things, is admirably told and illustrated by the authors, assisted by Margaret Ely Webb. Drawing, painting, stick-laying, paper-cutting, paper and wood construction, and modeling are all included naturally and effectively in the activities of these happy children. Moreover, the book is a primary reader of the most approved type. It might be called a standard guide to sane correlated work in primary grades.

*WHEN MOTHER LETS US CUT OUT PICTURES

By Ida E. Boyd. 94 pp. 5 × 8. 61 illustrations in silhouette. Moffat, Yard & Co. Price 75 cents.

Although addressed to children in the home, this is a book that primary teachers can hardly afford

to miss. It presents problems in an encouraging fashion, and shows well-proportioned cuttings, admirably composed within the space, and, in every case, legitimately treated as pure silhouettes. This gives to the illustrations a special educational value. The range of subjects is wide. There are illustrations appropriate to almost every kind of school exercise. It is a good book on the subject of elementary pictorial paper-cutting.

CHERRY TREE CHILDREN

By Mary Frances Blaisdell. 126 pp. 5½ × 7. Illustrated in color. Little, Brown & Co. Price 40 cents.

The birds and animals that make their home in and around an old cherry tree play the parts in this continuous performance for little children. The "book" is well adapted to a primary audience, but the staging of the play is what interests the teacher of drawing. To dress birds and animals appropriately without disguising their real forms, to give them human accessories and activities without obscuring individuality, requires insight and cleverness beyond the reach of many illustrators. Such powers seem to manifest themselves to a remarkable degree in Miss Clara E. Atwood, the illustrator of this imaginary history. The forty illustrations, drawn in pen-and-ink, and colored in flat tones, are thoroughly good, whether considered as drawings, as decorative compositions, or as interpretations of character and states of mind. In the rendering of human emotion by means of animal features Miss Atwood is not unworthy to be classed with A. B. Frost.

FIRST STEPS IN WRITING

By B. D. Berry. 56 pp. 8½ × 7¼. Illustrated in color. B. D. Berry & Co.

Here is something different! It is called a "Primer." It is intended as a first writing book. It contains the alphabet rhymes of Edward Lear (thoughtfully edited), with the best illustrations they have ever had, drawn by Frederick Richardson. These pages contain strong decorative drawings of flowers, birds, animals, and common objects, well rendered in soft colors. They are all worth framing for use as reference material in design. It seems almost a pity to have children spoil so handsome a book by trying to write in it!

LITTLE SONGS OF LONG AGO

By Alfred Moffat. 64 pp. 11 × 8½. With 30 illustrations in color by H. Willebeek LeMair. G. Schirmer. Price $2.00.

The illustrations in this pearly volume make it of special interest to art teachers. As examples of well-composed, graceful outline drawings, delicately tinted in flat tones of harmonious colors, they are not unworthy to stand alongside the work of Boutet de Monvel. "Dance A Baby Diddy," "The North Wind does Blow," "There Came to My Window," "The Spider and the Fly," and "Sleep, Baby, Sleep," are among the most charming illustrations of nursery rhymes ever put into a book for children.

GREEK MYTHS AND HERO TALES

By Fanny Comstock. 192 pp. 5 × 7. 23 illustrations. Ginn & Co. Price 45 cents.

A good deal of art for the money! The old stories are cleverly put into dramatic form by Miss Comstock of the State Normal School, Bridgewater, Mass. But the book is mentioned here chiefly for its thoughtful, well-drawn illustrations in pen-and-ink by Charles Copeland, and for its unusually attractive cover design in three colors by Miss Ethel Hoyle of Concord, Mass. The color scheme is one of those difficult combinations to manage successfully — a triad. The book is worth having merely as reference material in illustration and design.

☞The most valuable document available concerning picture study in the schools has recently been issued by the Oregon Library Commission, State House, Salem, Oregon. It contains an annotated list of books on picture study, a classified list of pictures suitable for different grades, a bibliography of books and magazine articles on the study and appreciation of pictures, a list of publishers and dealers, and other information such as every teacher is sure, sooner or later, to be looking for.

MISCELLANEOUS

THE BOY'S BOOK OF NEW INVENTIONS

By Harry E. Maule. 374 pp. 5½ × 8. 99 illustrations. Doubleday, Page & Co. Price $1.60 net.

The aeroplane, wireless telegraph, motion picture, thermit, steam turbine and automobile engine, are here described and illustrated from their inception to their present state. Another topic is the Romance of Concrete. The last chapter deals with more marvels of science, — color photography, the tungsten lamp and the pulmotor. This is one of the books to be added to the school library of history devoted to the heroes of constructive warfare, — the invaders of the unknown, the conquerors of difficulties, and the rulers of the powers of nature. The style is conversational. "The Boy" is perpetually making observations and asking questions which his friends are glad to answer. Every live boy who

reads it is "glad to be along," and is made to feel that he too can begin to do something.

A MANUAL OF SHOEMAKING

By William H. Dooley. 288 pp. 5 × 8. 41 illustrations. Little, Brown & Co. Price $1.62.

The American people spend over $3,000,000 per year on shoes, and know but little about them, except that they wear out. Here is a book that gives the history of the shoe, its method of manufacture, and all about it, in one volume, — the only textbook on the subject in this country for the general reader and the teacher. The author is the Principal of the Industrial School, Lowell, Mass., and knows shoes from tip to heel.

MOTHER WEST WIND'S CHILDREN

By Thornton W. Burgess. 168 pp. 4½ × 6½. Illustrated by George Kerr. Little, Brown & Co. Price 45 cents net.

Entertaining stories of human animals, conveying unobtrusively to children, along with plenty of welcome pleasure, certain useful information concerning nature's processes and our ethical ideals.

RIVERSIDE SIXTH READER

By James H. Van Sickle and Wilhelmina Seegmiller. 276 pp. 5½ × 7½. Illustrated. Houghton Mifflin Company. Price 55 cents.

A welcome addition to this well-known series, characterized by good sense, fine taste, and excellent craftsmanship in book-making.

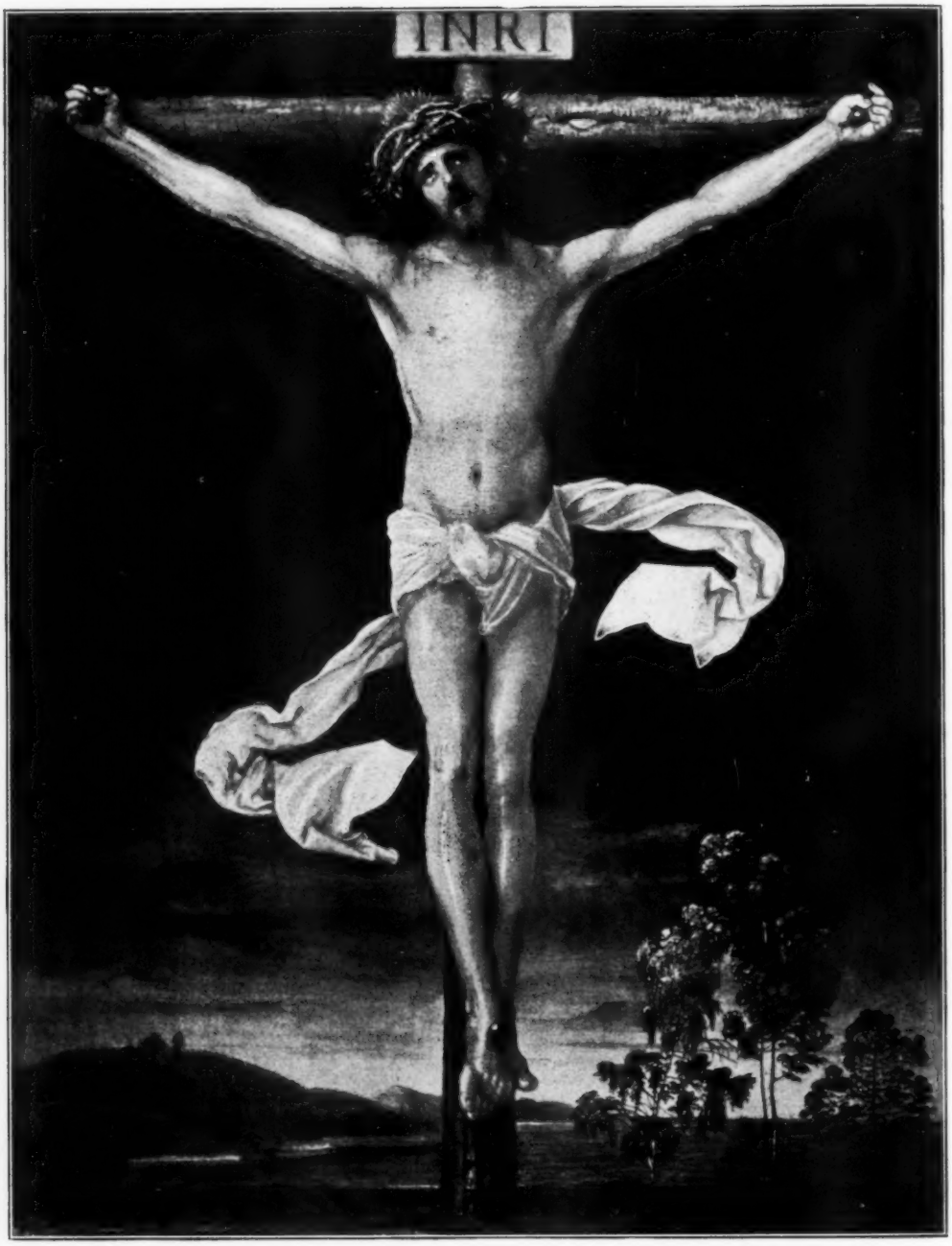
DONALD IN SCOTLAND

JOSEFA IN SPAIN

By Etta Blaisdell McDonald and Julia Dalrymple. 118 pp. 5 × 7½. Illustrated. Little, Brown & Co. Price 60 cents each.

Two more volumes of the popular "Little People Everywhere" series. The illustrations are half-tones from photographs from life.

☞ Any of these books will be sent to any address upon receipt of cash with the order plus 10 cents for postage.
THE SCHOOL ARTS PUBLISHING CO.



Albert Duerer: Christ on the Cross.
Dresden, Kgl. Gemäldegalerie.